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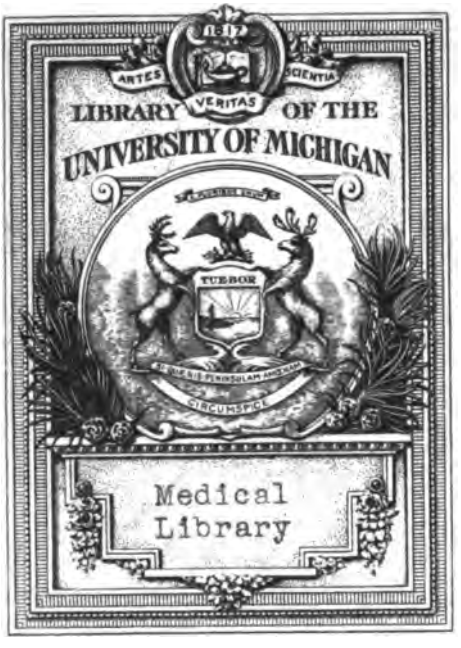

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Original Communications.

ARTICLE I.—*On a Marsh Plant from the Mississippi River Ague Bottoms, supposed to be kindred to the Gemiasma of Salisbury; with a Consideration of its Genetic Relations to Malarial Diseases.* Read before the Chicago Society of Physicians and Surgeons, November 10, 1873. By JOHN BARTLETT, M.D., Chicago.

Gentlemen: I invite your attention this evening to a plant from an ague bottom of the Mississippi river, with the purpose of considering the probability of its giving origin to the influence called malaria.

The theory of the origin of miasmatic diseases in the emanations of plants is not new. I shall not here recount its history, but will at once make reference to the most recent exposition of the idea as set forth in the remarkable paper of Dr. J. H. Salisbury, of Cleveland, Ohio, published in 1866, in the *American Journal of the Medical Sciences.*

The main facts in this paper may be thus stated: In the secretions of a large number of patients affected with malarious disease, and resident upon ague levels, Dr. Salisbury discovered, as the

only extraneous bodies constantly found, minute oblong cells. These cells were recognized in the saliva, perspiration and urine of every patient examined. The next step in the investigation was the discovery of similar cells arising from the malarial soil. Upon glasses placed at night over its surface, which was in this case a partially desiccated and peaty prairie bog, Dr. Salisbury found in the morning these same bodies. Growing upon the ground over which his glasses had been placed, were plants which he regarded as of a palmelloid type. In a number of instances he was enabled to point out, in a striking manner, the association of these plants with localized attacks of ague; and in several cases, in which, for the purpose of experiment, sods of ague soil had been left in sleeping apartments, at a distance from malarious regions, he found that ague was developed in the previously healthy persons who were thus caused to be exposed to the emanations of the marsh earth. In every inhabited locality, where Dr. Salisbury found these plants growing, intermittent or remittent fevers, or both, prevailed, in proportion to the extent and profusion of the palmellæ.

In regard to the pathology of the disease, Dr. Salisbury says: "The lesions of intermittent fever are confined mostly to epithelial structures, showing, quite conclusively, that the exciting cause acts primarily upon the parent epithelial cells. . . . . These derangements consist in the altering and enlarging of glandular structures, and in inflammations and alterations in structure and function of the mucous, epidermic and serous surfaces. All other abnormal manifestations are either symptomatic of these, or are the result of previous disease in the organism. All the glands in the body belong strictly to epithelial tissue, and are made up mostly of parent epithelial cells. These structures are affected in time and extent apparently in proportion to their importance in either organizing and assimilating products for nutrition, or disorganizing them for elimination. . . . . The exciting cause, inhaled, taken into the system with food and drink, and absorbed by the skin and mucous membranes, comes into direct contact with the epithelial cells, spread over and covering the entire body, both internally and externally, wherever there are any ways by which external bodies may enter the organism."

"Hence, the epithelial cells make up the first tissue of the system with which these poisonous bodies come into contact. They

have to pass through these cells, before they can enter the systemic circulation, and reach the vascular tissues. In passing through these cells they derange them so as to poison the products therein organized. In this way the other tissues, including the ganglionic and cerebro-spinal systems, become involved. As the epithelial cells of the glands—especially those of the spleen, mesentery and liver—are the most largely engaged of any in organizing nutrient products for the other tissues, these glands are the most severely taxed, and are the first to suffer extensively from the poisonous palmellæ: hence it is that in these we so frequently find grave lesions. When the tissues have become poisoned to a certain extent, there is a reaction on the part of the system—an effort of nature to eliminate the poisonous products already in the body. This effort is the paroxysm which constitutes what we call the disease."

As regards the ague plant in the system, he says that the examination of the urine of several hundred cases of intermittent and remittent fever, "establishes the fact that ague plants, the same as grown upon the soil, are constantly developed in the system of patients affected with intermittent fever, and that the urinary organs constitute one important outlet for the elimination of this fever-vegetation. . . . . The ague plants occur in the urine in the form of little cottony flocks, so small that they are scarcely noticeable by the naked eye, and too few in number to communicate turbidity to the excretion. They are very light in color, highly transparent, and appear to be developed in the bladder, pelves of the kidneys and ureters, often in considerable numbers."

In reference to the mode of elimination of the noxious element, Dr. Salisbury says: "The exciting cause must be carried out of the organism through those excretory channels (the urinary organs and respiratory apparatus) which nature has provided for the elimination of effete and abnormal products."

These views of Dr. Salisbury met with opposition. Dr. Horatio Wood, Professor of Botany in the University of Pennsylvania, published in the *American Journal of the Medical Sciences*, for 1868, a review of Salisbury's article, which perhaps did more to shake the faith of the profession in his discoveries than any similar publication. The objections urged by Dr. Wood

were cogent, and forcibly put, and were well calculated to put a quietus upon Salisbury's claims. In 1871, becoming interested in the statements made by Prof. Salisbury, and being at that time in Keokuk, Iowa, near the great ague bottoms of the Mississippi river, I determined to find, if possible, the plant somewhat indefinitely described in his paper. Several examinations of the soil, within the limits of Keokuk, and in the rocky bed of the canal in course of construction there, were made without result. In September of that year, I determined to examine the slough margins in the lower river bottom opposite the city, and invited Dr. J. P. Safford to accompany me. Pointing out to him the low alluvial soil to be examined, and giving him as accurate an idea as possible of the plant described by Salisbury, I requested him to search for it, while I was engaged in visiting a patient.

Upon reaching the marsh, my friend presented me with a sod containing numerous plants, answering somewhat to the description given him. The specimens secured we compared subsequently with Salisbury's account, but we could only conclude that the plant found was a variety of the gemiasma, differing from them in several particulars; chiefly, perhaps, in respect to its size. Salisbury, in a letter, described the larger of his plants as capable of being seen by the aid of a powerful lens. These were as large as rape seeds, and therefore visible to the naked eye of a passing observer.

I was at that time unprovided with suitable means of investigation, and did little more than observe a correspondence between the prevalence of ague and the vigorous condition of these plants. Specimens of the growth were sent to distinguished botanists of this State, and to Mr. M. C. Cooke, of London, but no responses were received from them indicating that the plant had been previously described.

In August last, I determined to continue this investigation, and for that purpose visited Riverside. This town is situated on the Des Plaines river, twelve miles from Chicago. For several years past, ague has prevailed there very extensively. I sought for the plant on the margins of the river, confident of my ability to discover it. In this, however, I was disappointed; none could be found. Subsequently, in an interview with Dr. Fox, who has long practiced in the neighborhood, it was learned that the ague did not

prevail there this year, but, on the contrary, there was a marked exemption from it. Lemont was next visited, a town twenty-six miles distant from Chicago, on the Illinois and Michigan canal. For several years it had suffered severely from malarial fevers. Dr. W. P. Peirce, a prominent practitioner of that place, informed me, upon my arrival, that there had been no prevalence of ague in that locality during this season, and that he knew of but two cases, and one of these was of foreign origin. With the assistance of Dr. Peirce, I proceeded to search for Safford's plant, in localities where ague had prevailed in previous years, and where, in Dr. Peirce's judgment and my own, the necessary conditions of soil would lead to the expectation of such a prevalence. No plants were found after an extended search. I then wrote to Dr. Safford, requesting him to visit the ague fields of East Keokuk, and forward to me some specimens of the plants discovered by him. In response, a meagre supply was received, with the statement that these had been procured with difficulty; that in the slough beds where we had found them growing in myraids in 1871, not a single plant had been discovered after hours of most careful search. The specimens forwarded had been found in another locality nearer the river. In 1871, in East Keokuk, the ague was epidemic. It might be said that every resident had the disease, and even those living on the adjacent bluffs, one hundred feet above the level of the river, were generally affected. Dr. Safford made the examination, referred to above, on the first of last September; he learned on inquiry that the ague had not prevailed in East Keokuk during the present season.

About the Des Moines rapids of the Mississippi, the Government is constructing a canal, seven miles in length, on the west side of the river. Since the commencement of this work, ague has at times prevailed among the laborers and their families, dwelling in shanties near the shore. The physician of that locality is Dr. G. F. Jenkins, of Keokuk. The ague prevailed especially along the canal in 1871–2. In the former year, Dr. Jenkins stated to me that he doled out to his patients thereabouts, an ounce of quinine daily. Whether the ague plant was growing at that time in that region, is not known. Dr. Safford and myself had found some specimens in the canal bed, in the lower part of the work.

On the fifteenth of September, Dr. Safford renewed his visit to

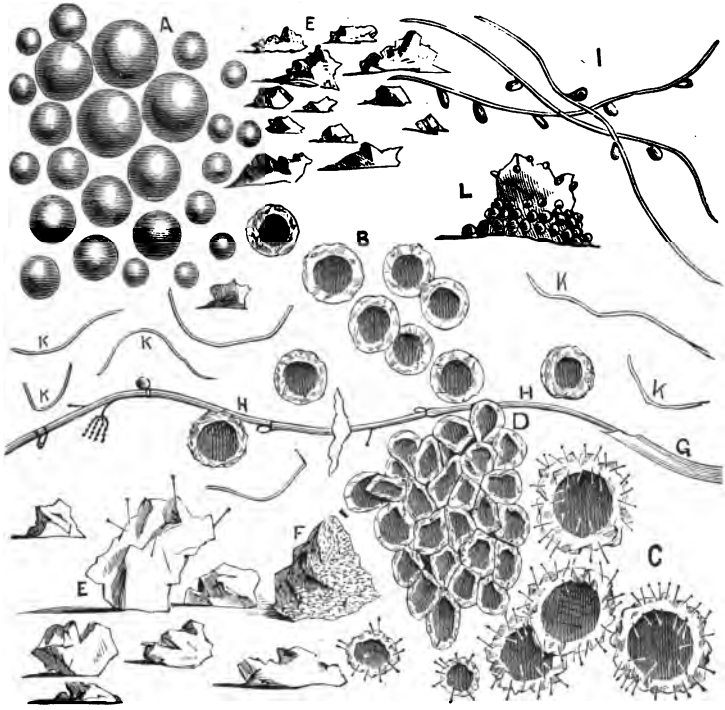
East Keokuk, and also requested Dr. Jenkins to examine the soil about the canal in his locality. On the extensive slough margins in East Keokuk, where no plant could be discovered two weeks before, they now existed in quantities exceeding the crop of 1871. *The ague was exceedingly prevalent.* Dr. Jenkins also reported that in the bottoms above Keokuk, where his practice was located, the plants were even more abundant than at East Keokuk, and that in the neighborhood, where two weeks before he had only two cases of ague, now "there was not a soul who was not affected with some form of malarial fever."

In July, 1872, I was called within a few days to five cases of ague in a small house near the corner of Clark and Division streets, about the centre of the burnt district on the North Side. This part of the city of Chicago, previous to the fire, was not liable to malarious affections. At the time mentioned, many of the lots were vacant, weeds covered squares of ground, and many cellars contained more or less water, either in consequence of defective drainage, or of leakage from adjoining hydrants. The house referred to above was in the rear of a blacksmith's shop in which some of the boarders were at work. Across Division street, to the south and a little to the east of this shop, at a distance of one hundred feet, was a pool of water in a cellar, produced by the leakage from an imperfectly closed hydrant. Of the five patients, the three first seized were laborers in the shop, and slept in the second story of the house, the windows of which were nearest the cellar referred to, and some one hundred and thirty feet distant from it. The other two patients worked at a distance from the house, and slept in a room in the rear of the one described. The disorder affecting those at work in the shop was obstinate; the attack of the two others was mild. The greenish mold on the margins of the collection of water described was examined at the time, but having no lens, I failed to recognize the plants. In September of this year I was called to the same house; two of the inmates were affected with ague. The soil of the cellar being examined, Safford's plant was found there. The fact was reported to the Board of Health, the hydrant was repaired and the pool partially filled in. One month afterward the ague patients relapsed, and upon examination the plant was found still flourishing on one of the sides of the former pool.

DESCRIPTION OF PLANT.

Safford's plant consists of body and what would appear to be a root. The body, or globe, consists of a wall enclosing a cavity. The layers of this wall are two; an internal, structureless envelope of a dull white color, like the retina in the cadaver, and an outer green wall, apparently resting upon the first as a basement membrane, which is much more complicated. It is composed of a great number of green cells; these are circular, and enclose green contents. The contained material seems to be divided by lines running across the cell, which do not, however, display any definite arrangement. At this point of development the cells furnish the observer no indication as to the granular or cellular condition of their contents. When injured they appear to discharge other very small and greenish cells of a simpler construction. The green wall cells do not adhere very tenaciously to the white membrane. They are readily detached from the latter by gentle friction and maceration, and float off on to the root or other adjacent body. Of the construction of the cavity of the plant within the white membrane I have no knowledge. It seems to be a simple sac. The globe of the plant, at maturity, collapses, the upper circumference falling in upon the lower in such manner as to leave to the view a cup, in place of a sphere. At first glance it would seem that the upper hemisphere of the globe had been thrown off, and that the observer was looking into the concavity of the lower hemisphere. More careful examination will show that the globe has collapsed, its contents escaping, and the upper half of its wall falling down upon the lower. The collapsed plant generally presents the cell wall unbroken. Occasionally the upper depressed half is slit open through its centre; frequently, along the margins of the cup, at the junction of the depressed and stationary portions, there are lacerations of the wall. When the soil containing the plant is removed from its natural bed and placed in different conditions, the collapse of the globe seems to be precipitated. The walls, examined immediately after having fallen in, appear of a darker color, as if moistened. The cavity of the plant contains a colorless fluid, which, it is presumed, is spontaneously evacuated when the globe collapses. It is forcibly ejected if the plant be punctured. I have never had an opportunity to examine it with a higher power than 200; I can therefore say nothing of its composition; it is

PLATE I.



Representing an "ague field": for degrees of magnification, see measurements below.

REFERENCES TO PLATE I.

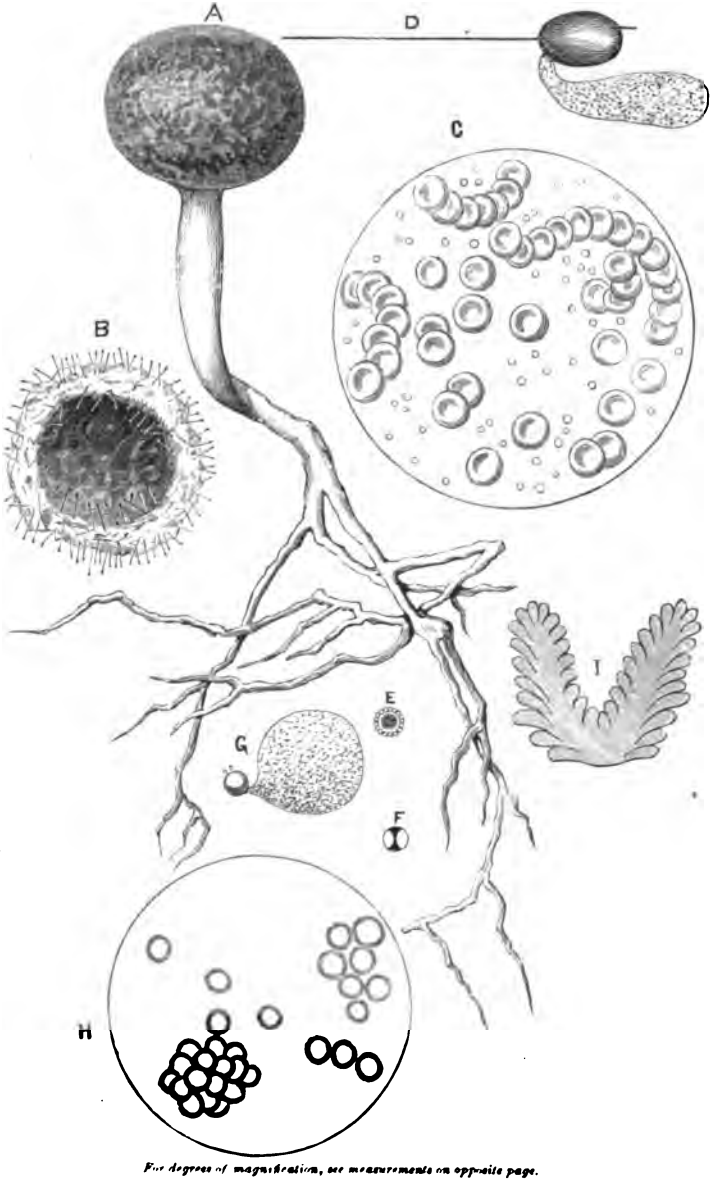
A—A group of mother plants.
B—Group of collapsed plants.
C—Collapsed plants showing acicular crystals, bearing globules.
D—Group of crowded collapsed plants, developed in depth.
E E—Groups of crystalloid bodies.
F—Granular crystalloid body.
G—Green vine.
H H—Crystalline thread continuous with vine, bearing various prominences, etc. [plants.
I—Crystalline threads bearing green cells with cellular walls, supposed to be young mother
K K—Pieces of crystalline thread, variously colored—black, blue and carmine.
L—Crystalloid body putting forth green cells, supposed to be young mother plants.

REFERENCES TO PLATE II.

A—Plant, showing globe and "root."
B—Collapsed plant; a forest of acicular crystals growing on its borders. [few).
C—Specimen of the blood of the writer, containing germinal atoms (blood discs relatively too
D—Acicular crystal, with globule putting forth contents. [beyond the visual distance.)
E—Spore of Safford's plant. (Cut too pronounced; a good representation when held just
F—Same, by polarized light—shaded portion, ruby red; light portion, green. [from it.
G—Spore; two germinal atoms near it; representation as of colony of atoms putting forth
H—Wall cells, as seen washed from the mother plant.
I—Imaginary section of collapsed plant, showing development of wall cells into spore cases.

MEASUREMENTS.—Diameter of largest plant observed, 1-14 of an inch; its root, near the globe, 1-40 of an inch; wall cells, 1-1300 of an inch; crystalline thread, neither the largest nor smallest, 1-1000 to 1-7000 of an inch; germinal atoms, less than 1-15000 of an inch. No opportunity was had to take measurements of the spores and globules. These are about the same size, and, it is supposed, about 1-2000 of an inch in diameter.

PLATE II.



For degrees of magnification, see measurements on opposite page.

probably simply nutritive. Under certain conditions, as when an attempt is made to preserve the plant in glycerine, the green wall, losing entirely its cellular character, becomes rumpled up, and massed upon the inner tunic.

The root, or what seems to serve as such, is, in length, about six times the diameter of the plant. The trunk of the root soon puts forth a number of branches which seem to terminate in points, the latter becoming bulbous when soaked, as in glycerine. The root is white and translucent; not smooth, but having an appearance as if the surface were covered with granules. It is hollow, the fluid sometimes seen within giving the shaft the appearance of a glass tube containing water. It seems continuous with, and similar in structure to, the white wall membrane; or rather, this membrane appears to be an expansion of the root material. Dr. Safford regards the cavity of the root and body as continuous; he thinks he has seen the green cells of the wall within the hollow of the root. I have never observed such an appearance. The green cells of the globe wall were often seen floating upon, under and about the root, and massing together in its branches. In such specimens, however, it has been easy to recognize the fact that these cells have been washed from the body of the plant—the spot on the globe from which they have been removed being readily detected by the bald appearance of the denuded white membrane.

The plant varies greatly in size; perhaps the average diameter of the mature globe would measure $\frac{1}{20}$ of an inch. They are, of course, occasionally so small as not to be detected without a lens; the largest specimens measure $\frac{1}{14}$ of an inch. The cellular character of the green wall may be detected by a good lens, this coat appearing granular under such a power.

At the time of my reception of the samples of the soil from Keokuk, I was of the opinion that the collapse of the globe, the falling in of its upper circumference upon its lower, was the final act of vitality on the part of the plant. I thought that its spores existed in the cavity of the globe, and were thrown off to produce a new plant, in the act of collapse. It was, however, soon apparent that a collapsed globe did not cease to grow. The cells of its walls were observed enlarging, projecting from the basement surface, elongating, and in this manner becoming distinct from their fellows. The green coating of the mother plant is almost invariably covered

with a white crystalline substance, which is abundantly scattered over the soil also, and everything in the vicinity of the plant. This white crystalline material was found so invariably and intimately associated with the plant, that it seemed highly probable some connection existed between them. Salisbury called the substance referred to, an aggregation of spores, and declared that he had seen with a high power the individual spores composing the mass. At the time of commencing my recent investigations, I was under the impression that this substance was adventitious—that it was, in fact, a species of dust. Upon placing the plant under the microscope, it was discovered that, after collapse, it underwent the following additional phases of development:

While the distinctive growth of the wall cells is in progress, the cup of the plant, made up by their aggregation, becomes deepened, so as to form a deeper and more cylindrical cavity, which, when a number of collapsed plants are crowded together, gives the mass a honey-combed appearance, the color being a light and brilliant green. The margins of the cells of this honey-comb (the margins of the collapsed globes) become coated with the white crystalline matter, of a duller and more bluish tint than that described. From this project innumerable short, acicular, vitreoid stems, each of which is surmounted with a brilliant globule, as of hollow glass. Meanwhile, two striking growths may be noticed near the plant and crossing over it,—one, a green vine, of a color similar to that of the cells; the other, a crystalline thread, resembling a crystal of the muriate of ammonia. Of these the green vine is the larger, and much less frequently seen; the crystalline thread is abundant, crossing and recrossing the plant, projecting into the air and over neighboring crevices. This growth, which appears to resemble the thread of ordinary mycelium, but which is different from it in various important particulars, is essentially the same as the green vine described above. The vine has been seen denuding itself of its green envelope and exposing the crystalline threads beneath. These filaments are not invariably white; they may be pink, are rarely blue, and at times they have an iron-mould, or even dead-black, hue. The larger specimens are as thick as fine sewing thread; their structure appears to be fibrous, and they are jointed, the joints bearing green-colored buds, also of a fibrous texture (apparent when they are viewed by transmitted light), and

having a crystalloid appearance when examined by reflected light. Sometimes the thread has strung upon it, as it were, a disc of white crystalline matter, convex and comparatively smooth on one surface, and rough and jagged on the other. Occasionally the thread bears a stem surmounted by a small cone resembling a pine-apple, and still more rarely, it supports a candelabrum of branches, each branch surmounted by a series of minute globules of crystalline matter. Rarely the acicular crystals originate from the thread. The crystalline thread, when recent, is motile; extremities of it projecting upward into the air, or overhanging a cliff, may be seen to sway to and fro, as a grain stalk, in the breeze. A specimen of it, a quarter of an inch in length, placed in glycerine between glasses, writhed like a snake; and a ribbon of this substance which formed in six hours in a specimen of semen from an ague patient, exhibited undulatory movement, and occasionally rotated on its axis.

By a power of two or three hundred diameters, numerous short pieces of very small white or black crystalline filaments may be seen lying upon, and about the old collapsed plants. The green vine is tortuous; its surface is very adhesive; small worms coming in contact with it are unable to release themselves, and quickly perish. The crystalloid bodies, when viewed upon the plant, present the appearance of a fine crystalline white powder, resembling quinine, or small crystals, as of common salt. On the ground they are larger. Some specimens are quite large—as large as rape seeds. Some have a rounded outline like that of a pebble, or door knob; others have a broken appearance. Some appear to have a fibrous, others a hyaline structure. Occasionally the crystalloid bodies are of a reddish-brown color, or of a rusty hue, often they are of a glistening black tint, like that of cannel coal. All these varying shades are sometimes noted on one piece. The darker crystalloid specimens resemble more nearly an assemblage of atoms than those which are white. When viewed by polarized light these bodies appear to be marked, in a direction perpendicular to that of the fibrous structure (when this is apparent), by a series of dark, finely-scolloped lines. From the crystalloid substances also, seem occasionally to proceed the various projections, prominences, etc., described as belonging to the crystalline threads. The developed wall cells of the collapsed globe disappearing in the process of their complete development, nothing remains of the mother plant but a saucer-like pit in a slate-

colored ground. The crystalline bodies and filaments have a longer life.

On concluding these general observations, I proceeded to inquire particularly into the connection between these growths; and with that view, a portion of a vigorously growing collapsed plant bearing acicular crystals, was seized and viewed under a low power. The wall cells then appeared to have become elongated, bottle or pestle-shaped, and in consequence of violence, exhibited patulous orifices, from which, in some instances, the contents were escaping. These contents were cells not distinguishable, except by their smaller size, from the wall cells of the uncollapsed globe. The slide was left in this state for a few hours. On my return, the parent wall cells were found collapsed, and the contained cells were not to be seen. The slide appeared to have been moistened, and was completely crowded with bodies, which under the power employed—seven hundred diameters—seemed to be minute non-nucleated cells. In attempting to estimate their size, I observed that new and smaller cells were constantly coming into view. It was concluded, therefore, that a protoplasmic fluid was under examination, out of which constantly originated the minute cells just described. The fluid was probably produced by the cells turned out of the cellular elements of the globe wall left on the slide. These cells emitted by the wall cells will be termed "spores," and the minute particles originating in the protoplasm, will be designated "germinal atoms." These latter had already exhibited, on the slide, a formative instinct. A double row of them stretched across the glass, one and another row appeared within these, and finally, before the observer was aware of it, a crystalline thread had formed. This was not at first round—it was such as had been seen on a "palmella" field—tape-like and twisted upon itself, apparently, at about every half inch, as seen under a magnifying power of fifty diameters. Another row of cells soon ranged on either side of this filament, and formed two heavy brownish-colored lines, between which and the crystalline thread minute particles appeared to be developing. These latter were, one might say, points of verdification. Lastly, the green colored envelope of the crystalline thread was formed by the coalescence of these points with the brown line. Meantime, other particles were aggregated into white crystalline masses, or into bodies resembling

granular casts from the kidneys. This and the self-multiplication of the cells was the limit of activity of the formative atoms.

Here was an interesting discovery: particles resembling those described by Salisbury as "spores," and found by him in human secretions, and upon slides suspended over ague plants, were recognized as extending from, and associated very intimately with, a vegetable growth, if not identical with, at least somewhat similar to, the plant described by him. And yet these particles were not spores—they were multiplying germinal atoms, which were seen to produce, *not the mother plant*, but crystalloid substances and crystalline threads intimately associated with it. I had seen the Salisbury spores (germinal particles) before, when crushing a matured globe upon the slide, but their extreme minuteness rendered their identification difficult. They had also been observed on slides suspended over plants. Whenever an object supposed to be a spore came within the field of the instrument, it had been my custom to cover it first with glycerine, and then with a delicate piece of glass. These attempts to prepare bodies suspected to be spores had been frequent, but in each case futile, as there resulted in the preparation not spores but wreaths or whorls of very minute cells. I was therefore well prepared, on recognizing them to be germinal atoms, for the following theory as to the plant's history:

The collapsed globe is the completion of one phase of the plant's life. From its cells are produced spores containing a protoplasmic fluid, which begets atoms, that in turn give birth to the crystalline thread and crystalloid bodies—these constituting the second phase of the existence of the fungus.

Leaving now, temporarily, this recognition of the probable character of the Salisbury "spore," I proceeded to investigate still another phase of the plant's development. Amid the disappearing collapsed globes, I observed proceeding from the crystalloid substances, and the crystalline threads, dark green cells with cellular walls, which were supposed to be young mother plants. After frequent and careful examinations, it seemed to me probable that the crystalloid bodies begat the mother plant; were in fact the seed of the ague fungus, fertilized, perhaps, by pollen in the globules of the acicular crystals. From these globules I had seen a colony of minute particles extruded, which appeared to remain inactive, that is, manifested no power of multiplication or

formation. I have seen the white crystalloid bodies disintegrate, crumble down into particles, and have observed them covered with small, green, cellular plants, which seemed to originate from their surface. That part of the crystalloid mass not occupied by the plants resembled a piece of moistened white sugar, and presented here and there greenish spots, apparently the points of origin of other growths, similar to those more fully developed on other parts of the substance. The walls of the green cells originating from the crystalloid masses, and growing from the crystalline filaments, under my observation have never attained full size, for want, it is presumed, of proper conditions of growth. As they enlarge, their color changes from a light to a very dark green.

It will doubtless occur to some of you, that in this description several plants have been confounded in one. It is quite possible that such is the case. It is apparent, however, that the real ague plant, if such be included in this description, is that which begets the multiplying cell here termed germinal atom. The crystalloid substances and mycelium-like thread, are regarded as phases in the development of Safford's plant, because I have obtained from this, both in its globular and collapsed stages, germinal particles, which have given rise to these crystalline bodies and filaments; on the other hand, these bodies, in turn, give origin to plants resembling the young of the growth here described as the mother plant.

By placing slides close over the malarial soil at night, I was enabled to secure the spores. Upon passing a slide so exposed under a power of one hundred diameters, occasionally there would appear in the field a dark spot apparently about the size of the shaft of a pin, peculiar in nothing except its circular outline. When more highly magnified, this spot was found to have something of the appearance of the wall cell. They are generally perfectly circular, presenting the appearance of having an outer wall, a narrow intermediate light space and a denser centre. The ring described as a light space generally appears to be occupied with a row of dimly discernable cells. This appearance of minute particles in circular rows is occasionally recognizable also in the outer circumference of the dense centre. Toward the middle of the spore, this appearance is lost, the dark color being broken only by several irregular lines passing over its field. By polarized light under a power of 1000 diameters, the spore seemed divided into three spaces, as if

by the drawing within its circle of two curved lines, the convexities of which approached one another near the centre of the spore. The central space, resembling the letter *x*, was of a ruby red color; the lateral spaces were green. These are the spores described as disappearing in glycerine. Left upon a slide, they may persist long without change. Sometimes a single germinal atom may be seen resting on the margin of the spore; at other times a shoal of particles may be noted proceeding from some point in its circumference. Free germinal atoms, and the glass-like globules which have been called pollen cells, are also occasionally found upon the slides. The stem of these globules appears to extend beyond them, or rather, from the surface of the cell at a point opposite to the attachment of the stem, a very short rod projects parallel with, but not in, the axis of the stem; it is a little to one side of the central line of the globule. Occasionally both stem and rod exist on specimens caught on slides. More commonly neither of these appendages are found upon such globules. Upon the suspended slides, quite a mass of the collapsed plant, containing a number of spores, has occasionally been found; sometimes the crystalline thread seems to be thrown upon the glass.

The germinal atom is the simplest form of a cell; when viewed with a power of 1500 diameters no nucleus or cell wall is to be observed. These particles appear as a slightly oval disc, with the palest blue or yellow tint. They strongly refract light, and by this property they may sometimes be distinguished from other particles, as specs of dust upon the eye-piece, or minute globules of glycerine, which they very much resemble. By screening the light from the field, they become conspicuously but not brilliantly lucent. The atoms vary in appearance in different secretions. In the saliva and urine they appear as in the protoplasmic fluid of the plant. In the blood they are circular, and have a yellow tint. When numerous upon a slide, they seem to overlie one another in part, so as to present an imbricated appearance. When a slide is densely crowded with the particles, it has an appearance as if frosted, or covered with wet snow. An atom taken from the tongue after having remained on the slide one hour, measured $\frac{1}{1500}$ part of an inch. At first to be seen with a high power only, they may be, after a growth of a few hours, advantageously studied with a power of 200 diameters. In the blood of two ague patients, yellowish

cells, having a diameter one-fifth that of the blood corpuscles, were observed. In one specimen which had been allowed to stand uncovered for twenty-four hours, the cells had disappeared, but crystalloid bodies were present, and crystalline threads had pierced through the thickest mass of blood. Like results followed examinations of my own blood. From my tongue and buccal membrane were obtained spores and germinal particles; these latter grew and formed their peculiar product. Upon examining my urine at different times, germinal atoms have been found to appear five minutes after voiding, to increase to a large number in half an hour, and to form quickly quantities of crystalline bodies and filaments. Crystals forming in the urine, as those of the oxalate of lime, seemed to serve as nuclei of deposit; they speedily became covered with what by transmitted light seemed to be a greenish coating. This, however, by reflected light was found to resemble the usual crystalloid bodies. In one instance a collection of crystals of the oxalate which were grouped well together were covered with a continuous mass of substance appearing by transmitted light like a yellowish brown mold. In two specimens after the urine had stood (uncovered) on the slide for twenty-four or thirty-six hours, an elongated pear-shaped green cell was found growing, apparently from a crystalline body. This cell was peculiar in shape, and in having two lines or folds running laterally across it; it resembled a spore case of the *puccinia graminis*, and corresponded exactly with certain forms of cells intermingled with wall cells in a specimen of Safford's plant in my collection. Crystalline filaments were voided from the bladder, at least they were detected on a clean slide in half a minute after passing the urine.

This report would be incomplete were I to omit to state whether the occupation of my blood by these germinal particles had an influence upon the system. These plants have been growing in a very imperfect way (for it seems impossible to imitate their native habitat) on the sill of my window for about six weeks past. I have examined the whole field, one foot square, often during the day, and pieces of the soil, as large as a microscopic slide, have been under observation for hours together. For a month past, the particles described have been observed in my blood; at the present writing they are abundant. In fields of the microscope, with three hundred and twenty-five diameters, from twelve to fifty parti-

cles have been counted. For two weeks past I have had decided symptoms of remittent fever. Occasionally quinine has been taken, and always with the effect of diminishing, or removing the threatening symptoms.

Upon receiving plants from Keokuk, specimens were given to the accomplished botanists of this city, Profs. Babcock and Munroe, with the request that they should classify them. Meanwhile the above description was written, detailing simply what had been observed, botanical technicalities being purposely avoided. The report of these gentlemen upon the plant is now at hand. It is, they say, the Hygrogastrum of Rabenhorst, or the Botrydium of the Micrographic Dictionary. Upon reading the description of these growths furnished, the classification made by the botanists seemed to me quite correct, so far as the mother plant is concerned. But the authorities referred to make no mention of the development of the collapsed plant, or of the crystalloid substances and filaments To my inquiry of the botanists, whether it was probable that the mother plant should undergo the phases here described, they unhesitatingly declared that such a development was contrary to all analogy; and that it was highly probable, that the green vine, the crystalloid bodies and crystalline thread, with the knobbed acicular crystals and germinal particles, belonged to a distinct growth, probably to a fungus, parasite upon the Hygrogastrum.

LOCALITY OF GROWTH.

In regard to the localities where the plant is generally to be found, I can only offer my own limited experiences. At East Keokuk, on the east bank of the Mississippi river, there is a series of small islands. These are separated from the main shore and from one another by narrow channels called sloughs. The borders of these islands are low, and at low water project outward as shelving beaches of sand. During the fall and spring the entire area of these lands is often overflowed, the water, upon its subsidence, depositing in those places where the current is slowest a greater or less amount of alluvial matter. The plane of the bottom varies to such an extent that with every day's decline of the waters there is exposed a large surface of moist alluvium. The ponds in the more elevated places disappear as the drying process continues, and new ones of lower level become cut off from the channel.

Some of the various shutes through the islands are, in every dry season, converted into a line of stagnant pools. It was on the margins of these that we found the plant described. The soil was porous and humid; at a distance of two rods from the water's edge the feet of the pedestrian left an impress, yet with care one could approach quite near the water without soiling the uppers of the shoes. The soil had a dull greenish appearance, from the deposit upon its surface of the green scum (*spirogyra*) left by the receding water. The ground was fissured in all directions, the crevices in the soil being sometimes several inches in depth, and an inch or more in width. In them, near the pond margins, the water stood within a few inches of the surface. Frogs, muscles, snails and insects were numerous. The soil was clothed with but little vegetation; it was bare of grass, but a very fine and short green moss was abundant. There was another species of moss which, for want of a better name, we called "stellate." It consisted of a number of small, thick, oblong leaves proceeding like radii from a common centre, and lying flatwise upon the ground, forming thus a disc from half an inch to an inch or more in diameter, with a plicated surface and crenated margin. The fine moss was assumed to be evidence that the soil was favorable for the growth of the plant, and the stellate patches were found to be still more intimately associated with it. The discovery of the stellate moss was quite sure to be followed by the finding of the ague plant.

The plants grew most plentifully on that belt of soil which lay between the very moist margins and the outer line of soil too dry for their growth. They were sometimes abundant on the margins of the fissures, and they were frequently found growing on the sides of the crevices, several inches below the plane of the surface. The plant is not confined to the moist, marshy soil described. It has been found growing in moist spots among the grasses at the roots of trees, and on the islands described at some distance from, and at some elevation above, the pond level.*

* It is difficult to cultivate these plants. I have not successfully done so. If not freely watered, the surface of the sod dries in the sun and wind; if the earth be made too wet, the plants do not flourish. The plan by which I succeeded best was to keep the sods in the shade, in a box with six or eight inches of garden earth under them. They should be moistened often, not by pouring water over the surface, but, by means of tubes conveying the water to the bottom of the box. Perhaps the plant might be more successfully cultivated in

OBJECTIONS CONSIDERED.

Reference has been made to the article of Dr. Horatio Wood. I desire to notice his objections and arguments against Salisbury's theory, with a purpose of inquiring how far they affect the view of the origin of the malaria given in this paper. As Dr. Wood's objections seem to embody all that could be said against Salisbury's theory, I desire to state them all, though it will be plain that a number of them would not have been urged against the theory here set forth.

Dr. Wood states that solution of quinine did not kill palmellæ; on the contrary, they flourished in it.

There are various points in the history of palmellæ which make it almost impossible that they constitute malaria; they do not grow in the dark; they could not, therefore, be supposed to flourish in the body. Frost lays a heavy hand on malaria; it does not kill palmellæ; on the contrary, they seem to flourish in an icicle. Prof. Leidy slept with various species of palmellæ, without disease ensuing. Dr. Wood has lived with palmellæ, and swallowed them by the thousand.

These are certainly very strong objections, as urged against the palmellæ with which Drs. Leidy and Wood experimented; but were these the plant to which Dr. Salisbury referred as the cause of ague? Dr. Wood candidly states that he does not know that they are; saying, with a just reflection on the exceedingly unsatisfactory description vouchsafed by Dr. Salisbury, "Prof. S.'s descriptions of his genera and species are so vague and destitute of character, that it is impossible to settle the question of identity, or to make any approach thereto."

a glass case arranged and managed like a so-called "fernery." In order to study the ague soil to advantage, it is desirable to put some of it in a box made of perforated tin, of the size of a microscopic slide, and about three-quarters of an inch in depth. It should be provided with a sort of tester of wire and tin, for holding a slide, when it is desired to secure spores; the frame work should be removable. The box may be placed upon the stage of the microscope, a piece of cloth protecting the instrument. When not under examination, it should rest in a cavity accurately cut for its accommodation, in a large sod of malarial earth, in order to prevent, as far as possible, drying of the soil, and to allow of its being properly watered. A good power in looking over the field is a two-thirds objective, giving a magnification of from seventy to two hundred diameters. The one-and-a-half inch objective may often be used to advantage, and occasionally a higher power, as a one-fifth, will be desirable.

It will be seen that none of these objections necessarily apply to Safford's plant as a causative agent of malaria—it is not a palmella. While quinine may not kill palmellæ, it may yet arrest the multiplication of the germinal particle here described. Palmellæ may not grow in the dark, but I have observed the germinal atom of Safford's plant multiply vigorously when deprived of light. The ingestion of palmellæ may be harmless, while the introduction into the blood of a rapidly multiplying cell may be hurtful.

Dr. Wood asks, "how could ague be cured, but by a long continued exhibition of some remedy capable of exerting a poisonous influence on palmellæ?" "There are," he continues, "diseases caused by fungi in the blood, but their history differs from that of intermittents" (referring to their producing a local and not a systemic effect). Again: the period of fruiting of algæ does not correspond to the prevalence of intermittents. Vegetable decomposition is an acknowledged necessity for the generation of malaria; palmellæ are independent of this. "The experience of the British army in Wallachia" (Walcheren?), says Dr. Wood, "is enough to set at rest the whole question of the genetic relation of malaria and algæ. The troops were encamped on a plain whose surface was composed of sand, so dry that no vegetation could exist upon it but a few heath plants."

The action of quinine in arresting the multiplication of cells in the lower order of plants out of the body, offers a ready explanation of its curative agency in malarious diseases, upon the theory of the cause here put forth.

There would seem to be nothing in the clinical history of malarious diseases contravening the theory of their production by multiplying cells, as suggested; judging from analogy, the effects of the entrance of such atoms into the system would be both general and local.

As regards the period of fruiting of Safford's plant, I cannot speak positively. I have never looked for it earlier than the beginning of September. It was then in full development, and as it speedily completes its cycle of growth, I know not why it may not be assumed that the infecting spores are being sent forth from the ripening of the first plant, early in the season, till the arrest of their growth by the frosts or floods of the fall.

Dr. Wood, in stating that vegetable decomposition is an

acknowledged necessity for the generation of malaria, is probably in error. An opinion which is pointedly denied by such authors as Wm. Ferguson, John Bell, Flint and Aitken, can hardly be said to be acknowledged.

In regard to the question of the disappearance of the cause of ague here assigned after the fall frosts, all the facts known to me are as follows: In the latter part of October, Dr. Safford wrote that the plants in East Keokuk were disorganized by rain-storms and cold; that they were in a gelatinous condition, unfit for examination. More recently, Nov. 4, he wrote that, after careful examination of the field, he could not discover a solitary mother plant. There were numbers of the collapsed globes, but in these, the wall cells were shriveled and shrunken. Dr. Safford sent me some specimens. My examination substantially confirmed his observations; I found on the sods received but one or two wall cells in a perfect state. I observed, however, that the crystalline threads were still growing, and that upon them were a few healthy looking cells which I have described as young plants. Dr. Safford states his conviction that, for the entire arrest of the growth of the plant, it will be found that a degree of cold sufficient to freeze the ground to the depth of half an inch or more will be required.*

Dr. Wood states that the experience of the British army, when encamped upon a dry, sandy plain, and assailed by malarious fevers, is sufficient to set at rest the whole question of the genetic

* Dr. Safford writes as follows: "I have made a last visit to the 'palmellæ' to-day (Nov. 3d). I have found them, as I expected, all dead or disorganized. I made thorough and careful search, and failed to find a single uncollapsed plant; cups there were in abundance, but these showed changes induced by storm and frost. I found them in what may be termed three stages of decay. 1st, greenish yellow cups, covering the ground like moss; 2d, cups of snow white appearance; 3d, beautiful carmine cusps, which gradually became a simple carmine incrustation upon the soil. I have seen all these changes going on in the same cup at the same time. I have long suspected that the reddish earth I have often found where I knew palmellæ had been, but had died out, was the remains of the plant; but I had never had demonstration of the fact till now." I found the Doctor's description accurate; the crimson collapsed plants were striking objects in the field sent. The cups described as greenish yellow were peculiar; they appeared to me to be the young plant, not collapsed, but *disrupted* by the weather; they were small, with cellular walls, and there was an appearance of one wall within the other, as in an opening bud.

relations of algæ and malaria. The question of the cause of malaria has been much obscured by the traditional reports of these army experiences, which have been transmitted unchallenged for generations. The following facts are quoted in many text books as showing an exception to the rule that malarial diseases originate in localities where there exist heat, moisture and appropriate soil; namely: Malarial diseases prevail on the heights of Gibraltar. They were rife among the English troops who, during the Spanish campaign of 1809, encamped upon the Guadiana, on the rocky heights of the confines of Portugal. Diseases referred to malaria prevailed among the British soldiers who, in 1794, were quartered at Rozendaal, in South Holland, upon a sandy plain, incapable of supporting any other vegetation than stunted heath plants. On the Alentejo land, situated upon the Tagus, opposite the city of Lisbon, where the soil is superficially dry, sandy and flat, residence exposes to malarial fevers. Finally, in the case cited by Dr. Wood, soldiers of Britain, when stationed upon a dry, sandy plain on the island of Walcheren, suffered unprecedented losses from miasmatic diseases.

Very naturally associating mountain heights and sandy plains with aridity and absence of vegetation, the student of malaria, accepting without question as isolated and independent facts, such statements as have just been cited, is lead to believe that malarial diseases may *originate*, as well as prevail, on a barren mountain or a desert waste. It is absolutely essential for the defenders of the theory of the origin of miasmatic diseases from vegetable germs, to show that such cases as those cited, form no exceptions to the general rule that conditions favorable to the growth of low forms of vegetation are essential to the production of malaria. I will, therefore, beg the indulgence of the Society, while I review the several statements referred to, with the view of showing that in no single one is there anything to prove that malarial disease originated under circumstances contravening the theory of vegetable origin.

Dr. Aitken says of Gibraltar: "On the summits of these rocks arise springs. The slightest frost produces fissures, into which fungi, *as mould*, and other vegetable matter, insinuate themselves. The rock of Gibraltar is known to be percolated with water, so that we can hardly conceive of a more pestilential focus of disease,

when the causes necessary to the formation of fungi or miasm are considered."

Dr. William Ferguson, in a report on the sufferings of the British army in Spain, observes: "The retreat was made along the course of the Guadiana river, at a time when the country was so arid and dry for want of rain that the Guadiana itself, and all the smaller streams, had in fact *ceased to be such*, and were no more than lines of detached pools in the courses formerly occupied by the rivers. . . . In some of the hilly ravines that had been watercourses, several of the regiments took up their bivouac, for the sake of proximity to the stagnant water-pools that remained among the rocks."

I concur with Dr. James Johnson in the opinion, that no one familiar with the habitats of malaria, can find anything subversive of the ordinary theory of its origin in the occurrence of marsh fever among soldiers bivouaced *for the sake of convenience* "in the bed of a half-dried ravine and near stagnant pools." It was in just such pools, in the rocky bed of the Mississippi river, laid bare during the construction of the government canal at Keokuk, that I found Safford's plants growing.

Rozendaal, where the British suffered from malarial diseases on a sandy plain, in 1794, is located in Holland, on a bed of alluvium, in a malarious region, that is referred to in a geographical encyclopedia as "a country that draws fifty feet of water," and "is everywhere intersected with canals and ditches." The town of Rozendaal is situated on a watercourse, and it is encircled about ten miles to the west and to the north by another stream. It is but thirty miles west of the island of Walcheren, the topography, climate, etc., of which, presently to be given, may be supposed to be common to the two places. Without inquiry as to the condition of the troops upon reaching this plain, I call your attention to this extract from Dr. Ferguson's account: "On digging, it (the sandy soil) was universally found to be percolated with water to within a few inches of its surface, and this, far from being putrid, was perfectly *potable in all the wells of the camp*." We find here the soldiers using for camp purposes the surface water of a swampy region, vieing with India in its power of engendering diseases of a malarious character, aud we are asked to accept the case as one proving the power of a sandy plain to beget malaria!

In regard to the Alentejo land, opposite Lisbon, we discover that "the surrounding country is perfectly open, very low, and flooded with water during the whole of the rainy season. It is after the rainy season that the sickly season approaches." The proof of the non-vegetable origin of marsh miasm should hardly be sought for in the instance of the occurrence of ague in a low river bottom, completely overflowed for a period previous to the unhealthy season. On the dry, sandy shores of the Mississippi river, several feet above the water level, in depressed spots where the sand, though not wet, was moist, I have observed Safford's plant to flourish.

As bearing on the facts respecting the occurrence of disease on the sandy plain of Walcheren, I quote the following extracts: "Zealand is a region more completely enclosed by and sunk below the level of the water, than any other part of Holland. It consists of nine islands, formed and environed by branches of the Maise and the Scheldt, as, passing from the state of rivers into friths, they unite with the ocean. The mariner, in approaching, sees only the points of the spires peeping above the immense dikes thirty feet high which defend them from inundation. The soil is moist and rich. . . . The island of Walcheren is low, nine miles long and eight broad, and is subject to inundations. It has good arable and pasture lands. Flushing is the seaport, and Middleburgh is the capital."

As to the general sanitary condition of the island, I quote Mr. John Webb, the inspector of hospitals, writing when the ravages of disease had begun, Sept. 11, 1809: "Independent of existing records of the unhealthiness of Zealand, every feature of the country exhibited it in the most forcible manner; the lands communicating with the sea covered with the most noisome ooze; every ditch loaded with matter in a state of putrefaction; the whole island little better than a swamp; scarcely a place where water of a tolerable quality could be procured."

Now, what were the circumstances which preceded the fatal occupation of the sandy plain by the British? The army that besieged Flushing lay entrenched under its walls, "without other defense," says Dr. Johnson (who was on the spot), "from the sun, the rain and the dew, than some straw or brush-wood. Generally, indeed, the men had the humid earth for their beds, and the canopy of heaven for their curtains. When Flushing surrendered, a

pause (fatal to military operations) ensued. A species of torpor, or rather, exhaustion, resulted, and then it was that the remote cause of fever, viz., vegeto-animal miasmata began to make its deleterious impression. But when we discovered that a boom had been stretched across the Scheldt, and that the surrounding country was inundated, and that various other insuperable obstacles interfered with the ulterior objects of the expedition, then, indeed, the depressing passions, and some other predisposing or exciting causes, communicated a fearful activity to marsh effluvium, which rivaled in its effects anything which has been seen in tropical climates. The French general, too, having opened the sluices, and *partially* inundated the country around Flushing, increased the force of the epidemic. Indeed, the road leading from the last mentioned place to Middleburgh, [nearly through the centre of the island?] might, at this time, vie, in respect to its insalubrity, with any through the pontine fens of Italy."

Another officer of the expedition wrote: "Toward morning we found ourselves wrapped in that chill, blue, marshy mist, rising from the ground, that no clothing can keep out, that actually seems to penetrate the inmost frame; the island was covered with a sheet of exhalation, blue, dense and fetid." Lord Chatham wrote, under date of Oct. 29: "The morning fogs began to be heavier and more penetrating, the soldiers were carried into close barracks at Middleburgh, where the fever raged more and more," etc. Dr. Johnson complains "that the army did not avail itself of some local advantages that presented themselves among those noxious islands," in that the soldiers were not tented on the elevated sand hills on the windward side of the island, "a site which would in all probability have kept them entirely out of the range of *those exhalations* which *covered* the country below." The island of Walcheren was notoriously unhealthy. In 1747 Sir John Pringle has recorded the experience upon it of English batallions, very similar to that of 1809.

Charles Knight, the historian, writes, referring to the contemplated expedition against Flushing, "every one who had thought or read knew what would be the consequence of sending 40,000 men to Zealand in August, and of their continuing there for two or three months." Napoleon wrote: "Before six weeks, of the 15,000 English on the isle of Walcheren, not 1,500 will be left."

It will be noted that the soldiery consisted of regiments, in which the marsh effluvium had already manifested "a fearful activity."

In considering the origin of malarial disease the important fact that it has a period of incubation should not be overlooked. This period, commonly, according to Dickson, seven days, not unfrequently extends over months. Were there reasons then to believe that the dry sandy plain of the Walcheren encampment was entirely free from miasmata, ample cause for the disease which prevailed could be logically sought after in the exposure of the army to the ordinary causes of malaria existing before Flushing. Indeed, Watson states that many of these very men who were exposed to miasmatic influences at Walcheren, did not experience its disastrous results until they had returned to, and resided some months in England.

On an alluvial island, of an area to be compassed with a radius of five miles, sunk below the sea level, recently half inundated, intersected with canals and ditches in the worst hygienic condition, with a climate notoriously malarious, its main road at that time as pestiferous as the pontine marshes, troops, enfeebled by warfare, despondency and extraordinary exposure on malarious shores, among whom miasmatic disease had already assumed a "fearful activity," are encamped, without tents, and without good water, on a sandy plain, at that season of the year when malarial influences are the most powerful. Marsh fevers make unprecedented havoc, and for several generations, medical writers have followed one another in citing the fact, as establishing the law, that malaria may originate on a dry sandy plain. And as late as 1868, the advocates of the theory of the vegetable origin of malaria are confronted with the statement, that the experience of the British army on the plain of Walcheren settles the question at issue, *against them!*

In the history of medicine it might be difficult to find an example in which so false a "fact" has for so long a time stood as a bar to the progress of truth. The advocates of fungal origin of paludal fevers may, at least, demand that observations bearing upon their theory be made anew, and with especial reference to the presence or absence in the infected localties of the agents assigned by them as the cause of disease.

Dr. Beale, in his work on Disease Germs, refers frequently to the production of systemic disease by vegetable germs, in such a manner as to lead the reader to infer that it was a matter of demonstration, that such an occurrence was an impossibility. His arguments are of no force as regards the plant and disorder under consideration. His chapter headed "Some difficulties which prevent us from accepting the Vegetable Germ Theory of Disease," is closed thus: "It may, therefore, be affirmed that the matter which forms the active virus or poisonous material (of contagious diseases) does not exhibit the properties of any vegetable or animal parasitic organism yet discovered and identified." This deduction is a complete summary of his argument; and I need not further occupy the time of the Society with reference to it, inasmuch as its bearing is upon a form of disease not here under discussion, and since the germinal atom here described is not included in the organisms referred to by Dr. Beale, as hitherto discovered and identified.

CORRESPONDENCE BETWEEN AGUE AND AGUE PLANTS AS TO LOCALITIES, ETC.

I now call your attention to the localities, conditions and circumstances in which malarial diseases arise, with the purpose of indicating a correspondence between these localities, conditions, etc., and those which pertain to the plant which we are considering. The following facts concerning the circumstances of origin, prevalence, etc., of paludal fevers, are taken from standard writers; and that the parallelism, which it is my purpose to point out, may be the more striking, I have written the laws of ague, and the corresponding known or highly probable facts regarding the plant, in adjacent columns.

First it will be noticed, that the localities in which malarial fevers abound, are those suitable for the growth of the plant described. "Agues have always been observed to be the diseases of moist or marshy districts, and to prevail most in low, swampy, and humid countries, where seasons of considerable heat occur. The vicinity of marshes, or of a district that has at some recent time been under water; the banks of great lakes, and the shores of great rivers and seas, where the water flows slowly, and in some places stagnates, in shallow rivers, over land alluvial, low and flat; extensive flat tracts of wood, where much moisture is constantly present,

where the process of drying is uninterrupted, and yet the surface constantly exhaling humidity;—these are some of the terrestrial physical conditions in which the paludal and the litoral fevers are found to abound."

Malarial diseases are strictly localized in prevalence.

This is of necessity a fact in regard to marsh plants.

An average heat of at least 60 degrees for two months is necessary for the development of ague; its violence and mortality are greatest in tropical climates.

We have seen the ague plant develop in large quantities in two weeks. But it must be borne in mind that, in many places, it may be necessary that a long drying process shall have gone on in order to fit the soil for the growth of the plant. For both preparation of soil, and maturing of a sufficient number of plants, some months may be required.

Malaria most generally prevails after rains followed by great heat, by which the surface is gradually dried.

These are conditions manifestly necessary, in many districts, for a state of soil suitable to low forms of vegetation.

As a general rule, the nearer the plane of habitation approaches the level of the marsh, the more violent is the ague poison.

This law is palpable as regards any theory involving emanations from marshes as causative of disease.

Sometimes ague prevails more on an eminence near a marsh, than on a level with it.

The explanation of such facts may find an illustration in an occurrence detailed by Dr. Salisbury. After the capture of Nashville, barracks were erected on a high eminence, selected as a matter of sanitary foresight. This hill, which had been noted for its salubrity, was soon found to be more prolific of malarial fevers than the plain below. Upon its summit, breast-works had been erected, thus causing the exposure of an extended surface of fresh, moist earth as a bed for the growth of ague plants. This soil was, in fact, found by Dr. Salisbury to be covered with such growths. In this case, spores wafted from the ague fields below, found soil perhaps even more congenial, at the very door of the habitations of the troops stationed on the hill.

The draining of dams and ponds, and the first culture of new soil often induce ague. It may be developed in previously healthy places by turning up the earth, as in making excavations for foundations, railroads and canals.

By draining, wet soil is placed for a time under the most favorable conditions for the growth of the plant. And upturned soils may catch the spores of the fungus not sufficiently abundant in the air to beget disease, and grow and multiply them enormously. The same may be said regarding the excavation of earth for canals, etc.

In proportion as countries are cleared up and settled, periodical fevers disappear.

The cause of this change is conceded to be drainage, whereby marshes, etc., in the vicinity of habitations become unfit for the vigorous growth of the plant.

Malarial poison has an affinity for dense foliage, which seems to have the power of accumulating it, when lying in the course of winds blowing from malarious localities.

The fact of foliage arresting and accumulating malaria will not be surprising upon the theory here set forth. Slides of glass, without any preparation of their surfaces, are found to arrest and suspend the spores and germinal atoms. It is manifest that the leaves of trees would be much more competent for such a purpose. We are told, however, that pine trees, which present a much less perfect barrier to particles in the air than trees of denser foliage, are equally effectual in arresting malaria. Prof. Dickson expresses the opinion that the pine tree is antidotal to marsh poison, citing the fact that ozone is found in the atmosphere contained in a bottle half filled with turpentine and exposed to light and air. Beale states that a minute trace of some of the ingredients of tar dissolved in water, is destructive to many of the lower forms of life. To an antagonism of this kind may also be referred the statement regarding the freedom from malaria about which grow the Jussieua Grandifolia or the Eucalyptus Globulus.

Not all marshes are malarious.

This fact may readily be accounted for, inasmuch as without the ague plant there may be no ague. As at

East Keokuk, prior to September first, the marshes were there as usual, but no fever appeared till a short time afterward, when the plants were abundant.

Ague exists where there are no marshes.

The ague plant may grow in comparatively dry places, provided that a degree of moisture is constant. It may be assumed, however, that this law is deduced by authors from the often quoted Walcheren experience, a review of which has already occupied your attention.

Periodical fevers never prevail in the thickly built portions of cities.

In such localities, there are few spots offering conditions suitable for the growth of the plant.

Covering the soil of ague districts with water arrests the disease. A violent rain storm diminishes the amount of miasm.

This fact was remarked by me when the Mississippi river overflowed the ague fields. The plants covered with water, or even soaked by rain, are in a jelly-like condition, incapable, in all probability, of emitting spores.

The local prevalence of ague in the autumn is checked by a decided frost.

The growth of Safford's plant arrested by frost, is, in all probability, entirely checked by cold sufficient to freeze the ground for half an inch.

NATURE OF MALARIAL DISEASES.

The nature of malarial diseases, if the theory involved in this paper be correct, is plain. The germinal atoms, less than one-fifth of the diameter of the blood corpuscle, readily enter the blood with the air inspired, or with the food or drink. When there, they may induce disease by a catalytic action, described by Liebig as an influence of contagion, by which the mere presence of a third inactive body invites, induces, changes between other substances hitherto resting in equilibrium with one another. Catalytic action is now however, by many chemists, set aside as an unnecessary theory regarding results to be explained upon principles in accordance with direct laws of cause and effect.

According, then, to the more recent theories, the action of the foreign germinal atom in the blood may be supposed to be that of a ferment, and the malarial diseases to be literally zymoses. The

atoms produce changes in the blood, as the atom of the yeast plant produces changes in a saccharine solution, by seizing upon elements of the sugar, and applying them to its own uses; meanwhile, in turn, depositing in the solution substances which may bear to the cell the relation of effete matters. The living germinal atoms feed upon the fluids of the blood, and induce farther changes in it by making it the depository of their excreta. The germinal atom of Safford's plant may induce changes in the blood as the very similar atom of the yeast plant, vinegar plant, etc., induces changes in fluid in which they are placed. Liebig was of the opinion that oxygen was essential to the process of fermentation, and other chemists have maintained that the process was one dependent upon ferments spontaneously originating in the fermentible fluid. Pasteur, however, by his masterly study of the subject, has shown that oxygen is not necessary for this process; nor can it originate of itself. The essential causative element in fermentation in all cases is the minute self-multiplying cell of a plant.

There are those who have opposed the theory of fermentation in the blood, regarding the process as one quite impossible in a vital fluid, and in fact, looking upon it as an occurrence only to be met with in the brew-house. Even Beale, the great advocate for the causative influence of germinal atoms in regard to cattle plague, gonorrhœa, vaccine disease, small pox, etc., is entirely incredulous of the fermentation theory. According to my idea, which I will say has been gathered from the study of Beale's writings on bioplasm, etc., fermentation is a process most likely to be taken on by the blood; in fact, I regard the transformations continually effected in the system by secreting cells and bioplastic atoms as strikingly analogous to the changes induced in fermentible liquids by the cells of plants. In both instances we have a compound fluid, and a living cell capable of producing transformations in it. Flint, when considering the mechanism of secretion, says: "There are certain anatomical elements (epithelial cells) in the glands which have the power of selecting the proper materials from the blood, and causing them to undergo catalytic transformation (into secretions)." Borrowing the phraseology of this physiologist, I might say: In ague there are certain elements (vegetable cells) in the circulation, which have the power of selecting normal materials from the blood, and causing them to undergo catalytic transformation into products abnormal, and noxious thereto.

It is to be assumed that the vital fluid is not disposed to take on the malarial fermentation, that upon the entrance of ague atoms into the blood, they are eliminated, and it is only when the production of atoms is in a certain degree in excess of the elimination that a paroxysm is induced. One atom, or a thousand atoms, may not excite the disease in those whose blood is indisposed to that particular form of change induced by the ague cell, or in a system in which the germs are rapidly excreted. We may, however, suppose that the quantity of atoms becoming excessive, either from an increase in the number entering the system, or from a failure of the excretories to cast out the usual quantity, a paroxysm results. For the full development of fermentative processes, a certain interval of time is necessary; we may, therefore, expect a period of incubation in malarial diseases. This period may be a few hours, or it may be months. In the latter case, it is supposable that some intercurrent condition of the vital fluids has rendered blood hitherto indisposed to undergo malarial fermentation, susceptible to it.

Lest some should deem this theory too bold, and void of foundation, I beg leave to call your attention to certain facts developed by Pasteur. In general terms it may be stated, that he found that certain fluids, capable of all forms of fermentation, preferred certain forms, though if pains were taken, any particular fermentation might be induced in them. Thus, the fluid *a* prefers to undergo the *x* fermentation, and if fermentation cells *x* and *y* and *z* are all placed in like number in the fluid *a*, it invariably undergoes the *x* fermentation; should you, however, interfere with this preference so far as to add a great number of *z* atoms, the *z* fermentation will result, or the *y*, as you may elect; other fermentible fluids, as *b* and *c*, prefer the *y* and *z* fermentation; meanwhile, while a fluid is undergoing any fermentation preferred by it, or forced upon it, any other fermenting cells present are dormant.

This has a parallel in clinical history. It is a familiar fact that while one zymotic disease is in action, as the scarlet fever, vaccinia may be held in abeyance, afterward to assume action. And a yet more striking fact is this—using the language of our theory—a patient may be undergoing the intermittent or remittent fever fermentation, the yellow fever atom enters his system, and at

once, as it were, assumes control, the earlier form of fermentation ceases, and that of yellow fever proceeds.

Thus in a healthy system, the blood prefers to undergo the changes natural to it, preferring to submit, as it were, to the action of its own bioplasms and cells. A limited number of germinal ague atoms then have no influence, but if the system be crowded with them, the healthy processes cease, and the foreign cells hold sway.

An attempt to explain the phenomena of periodicity of malarial diseases has been made by the advocates of its fungal origin; thus, certain forms of spores exist in a given infusion, they gradually diminish, and finally subside. After an interval they reappear in incredible numbers, soon to disappear and to appear again as before.

According to these views, ague is, like the yellow fever and cholera, a portable and communicable disease. It is manifest that enough crystalline substance might be carried under the finger nail to infect the Mississippi bottom with ague. There are not wanting physicians whose experience has led them to believe that ague is communicable—perhaps their opinion is not without foundation. It should be borne in mind that ague poison, like the cholera virus, would depend for its propagation upon the contingency of the falling of its seed on soil suitable for its growth.*

According to Dr. Beale, the most conspicuous pathological result following the multiplication of germ cells in the system, is a blocking up of the capillaries by their aggregation in these terminal vessels, and perhaps by fibrine effused because of their presence. In cattle plague, a disease produced by just such a cell as I have described as an ague atom, this blocking up or closing of the capillaries was the primary pathological event. Following it was an increase of development of the bioplasts of the part, transudation of the cattle plague cell through the walls of the capillaries, and great development of it in the connective tissue. I see no reason why the pathological changes resulting from intermittent and remittent fever

* In this connection I will refer to a suspicion which observation has aroused in my mind, that cholera is sometimes produced by the use as food, of certain large plants, as cabbages. May it not be that these plants, often growing on soil competent to nourish fungi, accumulate the cholera poison on their leaves, and thus are the means by which disease germs enter the system?

might not be referable to like actions set up in the capillaries of the liver, spleen, etc., by the development of the ague atom.

The corroboration which the zymotic theory of malarial diseases derives from a consideration of its *juvantia*, I will only refer to. Arsenic, quinine, the sulphites. etc., are well known to be destructive of the life of the lower order of plants. Their power over the disease may be ascribed to the destruction of the ague germ, or to the arrest of its development.

Before closing this reference to the possible action of the ague atom in the system, I wish to call your attention to a reference made by Dr. Wood, in his article against the fungal origin of disease. After maintaining that in whatever instances fungi were known to affect the human system, their effect was local — that no systemic disease was known to be produced by them, he proceeds as follows: "The nearest approach to the production of systemic disease by fungi is seen in the affections of certain of the lower animals. Their spores have been found in the blood in some of these cases. . . . . They appear to act on the blood, as they do upon other tissues, producing a local disease of it, so to speak, giving origin to a steadily progressive train of symptoms. They feed upon the nutritive fluid, form filaments in it which pierce the walls of the vessels, and ramify through all the tissues. The most carefully studied of these affections is that which attacks the ordinary house fly. The first appearance of this disease is the presence of very minute oval cells in the circulating fluid, which cells increase in number, enlarge, grow into filaments, pierce the blood vessels, and ramify through all the tissues, gradually destroying them. In eight or ten hours after death, the filaments continue to grow, pierce through the surface of the body, and interlace over it, to form a whitish winding sheet." Dr. Wood regards it as doubtful whether in this instance the fungus was the cause of death; it perhaps simply preyed upon a mortally stricken fly.

I regard this as a case in which a vegetable cell, endowed, like the ague atom, with the power of multiplication and formation, entered the blood and induced death by general and local disease.

YELLOW FEVER AND CHOLERA DUE TO GERMINAL ATOMS (?)

There are two diseases which in the laws of their occurrence are so similar to malarial fevers, that it may be assumed that if the

one be found to depend upon a fungus growth for its origin, a similar cause will be discovered for the other two. These diseases are yellow fever and cholera. In regard to the former, the actual facts tending to show its dependence upon a vegetable germ for its cause, are very meagre; but they are nevertheless worthy of mention. Prof. Leidy, in 1854, among the matters detected in black vomit, mentions "crystalline bodies." Dr. Riddell discovered minute filiform algæ. Dr. Hassall detected ramose branches of the sporules of a fungus; branched and moniliform threads of a fungus. In 1867, Schmidt observed in black vomit granules with very dark and thick outlines, with a very clear and refractive centre, and fuller grown spores of fungi — the smallest germ having a diameter of one twenty thousandth part of an inch. From the spores filamentous tubes were developed. Any or all of these bodies may have been developed in the fluid from germs received into it after its discharge, but in the light of the facts now presented in regard to fungal developments in ague secretions, they present a certain interest, and perhaps some importance.

To such a plant as here described, might be referred many of the phenomena of cholera. We have only to suppose a cholera fungus capable of growth at certain temperatures, and under certain conditions, in order to explain the non-contagion, portability and communicability of this disease, as well as certain peculiarities in its clinical history. These peculiarities are, a period of incubation, and a marked difference in its modes of invasion. It may succeed an attack of diarrhœa, or may at once prostrate a patient and destroy life, in the manner of the agencies which produce congestive fever.

There is a fact in connection with its causation, to which I would here call attention. Niemeyer and others confidently affirm that the main source of communication of the disease, is to be found in privies. And it is a generally accepted statement that during the prevalence of the disorder, privy odors should be regarded as evidences of danger. In the "American Journal of the Medical Sciences" for 1868, Dr. Edgar Holden, in an article on the causation of attacks of intermittent fever on shipboard by a species of mold, known as "Thallophyte," says: "I am convinced that there is a way in which it [sulphuretted hydrogen gas] is responsible for certain diseases."

In the course of the article, he puts forth the opinion that the mold alone, and the hydro-sulphuric acid alone, are incapable of producing intermittent fever, but that in some way their association is competent to bring about such a result. It may be that sulphuretted hydrogen gas in swamps, and in the filthy localities of large cities, is essential to the perfect development of the ague and cholera fungus. But there is a much more important idea to which I desire to call your attention. In 1838, Boehm stated that in cases of cholera the entire intestinal tract teemed with a vegetation of micro-fungi; that innumerable round and oval, or more elongated corpuscles were there to be discovered. In 1848, Dr. Parkes recognized dark-yellow, or black, granules in the blood of cholera patients. In 1866, Prof. E. Hallier, of Jena, described spore-cysts to be found in cholera excreta—yellow or brownish-red bodies, consisting of a pale membrane enclosing highly refractive, colored spores. These spores are to be resolved into "colonies"—very small cells, called by their discoverer "micrococci." By cultivating these spores, Hallier succeeded in causing to grow from them a long, pale filament, from which spore-producing processes branched off. Subsequent observation led Hallier to the conclusion that the fungus, which, in its development, assumed five different forms, was, in fact, an urocystis. Analogous fungi occurring in the tissue of certain grasses, connected these discoveries with the idea of the earlier English practitioners in India, that the cholera was in some way connected with the rice plant. Hallier succeeded in developing in the tissues of such plants, watered with cholera secretions, a fungus which was apparently similar to that found in the cholera discharges. So strong was the expectation, aroused by these facts, that the cause of cholera had been discovered by Hallier, that two physicians, well qualified for the task, were detailed by the English government to investigate the subject. After a most carefully conducted research they reported as follows:

"1. No cysts exist in cholera stools which are not found under other conditions.

"2. Cysts, or sporangia of fungi, are very rarely found under any circumstances in alvine discharges.

"3. No special fungus has been developed in cholera stools, the fungus described by Hallier being certainly not confined to such stools."

Dr. McNamara also asserts his conviction that fungi peculiar to cholera discharges have not been discovered: that in them, as in other nitrogenous substances undergoing decomposition, fungoid growths occur. He positively affirms that no such growth can be detected in *fresh* cholera stools—the more recent the specimen examined, the more certainly will the absence of fungi be established.

After these declarations of most competent observers, Dr. Aitken says: "So far, then, as fungi are concerned in the spread of cholera, I am satisfied that we have no grounds for such belief."

It will be observed that there are certain elements of Hallier's fungus analogous to characters of Safford's plant. It has several remarkable phases of development, and presents filaments, spore-cases (here called wall cells), spores, and *contained atoms*.

Last summer, when the pathology of cholera was under discussion, and cholera stools were under examination, before this Society, I took occasion to make the following remark:

"The cholera paroxysm is regarded by many as an effort on the part of nature to rid the system of a poison, and with that idea in mind, the cholera ejecta are examined for the purpose of discovering the noxious element. If the phenomena of cholera result from an eliminative effort, that effort is generally unsuccessful. In view of this fact, would it not be more rational to look into the system, and especially the vascular system, for the cause of the disease?"

You will have anticipated my purpose in this reference. Hallier's idea, and that of his followers, as well as of the critical investigators of his position, was fixed solely, I believe, upon the presence of an *intestinal* fungus as a cause of cholera. The report of the British Commission, so far as can be discovered from extracts here accessible, has no bearing on the genetic relation to cholera of fungal elements *in the blood*. May it not yet be found that a multiplying cell of Hallier's plant (his micrococcus?) is the cause of cholera? The products of such a cell, the fungal character sought for in the intestines by the English investigators, might be as harmless there as the crystalline thread of Safford's plant in the bladder, and yet its multiplication in the blood might prove as fatal to the organism as pernicious fever.

The following considerations regarding the pathology of cholera

will not be without interest in this connection. Nearly all pathologists recognize in the clinical history of the disorder, obstruction to the flow of blood in the capillaries—some referring this condition to spasm, others to paralysis of the vaso-motor nerves. Dr. Beale has invariably found obstruction of the capillaries to be the most palpable condition of disease, resulting from the multiplication of disease germs in the blood; and this obstruction has been detected by him in cholera cases. It should be here stated, that this accomplished microscopist incidentally notices the presence of minute germs of fungi in cholera blood.

AGUE FROM OTHER PLANTS—HYGIENE—DIAGNOSIS, ETC.

There is reason to believe that the phenomena of ague, or at least, paroxysms similar to those of intermittent fever, may be induced by emanations from several forms of fungus. Thus, Holden, in 1866, reports eight cases of intermittent on shipboard very directly traceable to the exposure of the patients to a species of mold known as Thallophyte which had rapidly and abundantly developed in the ship's storeroom, as Dr. Holden believed, under the stimulus of sulphuretted hydrogen gas arising from the bilge. And, according to Dr. Aitken, epidemics of malaria have been traced by Reid, in the Mauritius, and by Massey, in Ceylon, to very minute fungi of rapid growth, as a cause.

In the event of the plants described being the cause of ague, what will be the value of the discovery as a matter of hygiene? Localities where they prevail may be avoided, as in pitching a camp or founding a settlement. When the surface occupied by them is small, they might be destroyed, according to Salisbury's suggestion, by covering them with lime, ashes, or straw. If their territory of occupation is extensive, it might be necessary to change the condition of the soil by drainage, in order to secure their destruction. It is possible that some vegetation may be discovered to be hostile to their growth, as are reported to be the plant and the tree previously mentioned in this connection. Finally, by experimentation, some medicine harmless to the system may be found, which, taken continuously, would destroy them in the system, or at least arrest their increase in some such manner as quinine may be supposed to do. Where exposure is inevitable, the experiments of Pasteur would suggest the use of the cotton-wool respirator.

In the event of these theories being correct, we have in the microscopical examination of the secretions of the patient an excellent means of diagnosis, and having at hand the exciting cause, experiments made directly upon it would, without doubt, lead to great advances in the therapeutics of malarial diseases.

SALISBURY'S DISCOVERIES.

Before concluding, I wish to make some remarks regarding the discovery of Prof. Salisbury. Are his plants and Safford's the same? There is a want of correspondence between the description given by Salisbury of the gemiasma, and what I have called the "mother plant." On some sods sent from East Keokuk was what appeared to the naked eye to be a green mold. Dr. Safford had sent this growth as specimens of young plants of the kind discovered by him. Upon examination, the cell wall of the small globes was found to be cellular, and they were accordingly regarded as differing from the wall cells of the collapsed plant, which they resembled, and as being Safford's plant dwarfed by unfavorable change of situation. I have observed also that the cells growing from crystalloid bodies, and promising to become mature mother plants, soon ceased to grow in my ague field. They remained diminutive, and seemed to multiply by vegetative increase, one apparently giving origin directly to another. Now these cells correspond in appearance and size quite exactly to Salisbury's description of palmellæ. It may have been Safford's plant in this form of growth which he saw.

Dr. Salisbury describes the "spores" thought by him to produce ague, as "minute oblong cells, either single or aggregated, consisting of a distinct nucleus, surrounded by a smooth cell wall, with a highly clear, apparently empty space between the outside cell wall and nucleus." This description does not apply to the simple germinal atom described by me. It applies rather to the body which I have represented as a spore, excepting that this object, which is larger than a blood disc, could not be called a minute cell, "the most minute of all known organic cells." Unable to reconcile these differences, I am still disposed to believe that Salisbury's spore and the "germinal atom" may be the same body. I have observed that the atom appeared, when out of focus in one direction, as a granule; in the contrary direction, as an enlarged ring. Were Dr. Salisbury less expert as a microscopist, it might

be supposed that he had deduced the idea of a nucleus and cell wall from such appearances — a deduction, it may be remarked, much more likely to be made in 1866 than at the present time. Multiplying and formative power is not assigned to the ague cell by Dr. S.

Prof. Salisbury refers to "salt-like incrustations," and speaks of them as disintegrating, and, if I rightly conceive his meaning, developing into palmellæ. He refers incidentally to "confervoid filaments," and to "green confervoid filaments," and, while he describes the plants as appearing in the urine, in a manner not observed by me, as "cottony flocks," and as "the same plant as grown upon the soil," he also states that he has found quite uniformly in the urine of ague patients, "the spores of a species of fungus—generally vegetating—*belonging to* the genus sphærotheca, and which is uniformly found growing on, and in, the larger species of palmellæ, the gemiasma protuberans." Also, that "in some cases of ague of long standing, yeast plants, *species* of Penicillium and Aspergillus, are also found, developing in large numbers, the mycelia often rising to the surface a short time after the urine is voided, producing fertile threads and fruit."

It is evident that I have worked in the same field with Dr. Salisbury. Further investigations will render what in the history of the "gemiasma" is now uncertain and indefinite, plain and clear; and, in the event of the cause of malaria being found associated with these plants, even in a manner far different from that suggested by Dr. Salisbury, to him will yet belong the credit of original and effective research in the direction which led on to the truth.

In closing this paper, I desire to state, as an explanation of the want of completeness of my study of the plant and its possible causative relation to malaria, that my investigations have been cut short by the disappearance of the fungus, and the diseases supposed to depend upon it. The results of my work thus far are put forth with the hope of securing such co-operation from other observers as may insure an early solution of the question at issue.

Selections.

Bite of the Diamond Rattlesnake (*Crotalus Adamanteus*).* By A. MITCHELL, M.D., Portland.

During my residence on the St. Illa river, in Southwest Georgia, on the 1st of April, 1864, I had occasion to attend a very severe bite of this venomous reptile, in the case of a colored boy, about fifteen years of age.

He was struck, about six inches above the external malleolus, on the outer edge of the gastrocnemius muscle, the leg being bared, and treading directly on the snake, while in the coil. The fangs entered deeply, inflicting a severe wound, when by his convulsive spring he tore them from his leg.

After receiving the bite, he ran about four hundred yards, and fell, in a convulsive tremor. The cries of his mother brought me to his side in ten minutes. I quickly applied tight ligatures above and below the knee, with firm compression over the popliteal region, and then made three incisions over the region of the wound, nearly an inch in depth, from which flowed freely a dark grumous blood. Large doses of carbonate of ammonia were freely administered, the bleeding encouraged by sponging the wound with warm water, and then the piston-cups were applied, and kept on for about forty minutes, until red arterial blood began to flow. My patient then becoming very weak, I withdrew the cups, after taking twenty ounces of blood. The pulse being depressed, with subsultus continuing, I administered two ounces of spiritus frumenti, with a little water, and had him removed to his home, and placed on his bed; the lower cord around the knee was then removed, and likewise the compression at the popliteal region.

Appearance of the patient much changed; great agitation, stupor, tremor, and prostration of the vital powers. Leg and thigh quite swollen; removed the upper ligature, applied pulvis nucis vomicæ to the wound, and enveloped the whole limb in a poultice composed of young fern, bruised, and saturated with a strong alkaline solution. Pulse 130, small in calibre; great thirst; skin cool; twitching of the muscles quite subsided, with the exception of some trembling of the muscles of the thigh; great pain in the region of the wound, and along the course of the nerves of the leg

* There are three species in the family—the *Diamond* rattlesnake, with the most poisonous virus of the North or South American continent; the *Banded* rattlesnake, whose virus is not quite so effective, but is destructive of human life; the *Ground* rattlesnake, of an inferior size, whose virus will not destroy human life, whose bite produces a chronic ailment, with pain and periodical swellings of the limb bitten, affected by transitions of temperature similar to that of a gun-shot wound.

and thigh; skin harsh and dry; ethereal anodyne administered; carbonate of ammonia continued in smaller doses; had a restless night.

2nd day.—Visited him early in the morning; found him feverish; pulse 120, and contracted; countenance anxious. Stupor continues, accompanied with depression of the nervous energies. Sensation of coldness over the whole body. Calls frequently for water, and rejects all nourishment. Slight twitching of the limb. Took three ounces of blood with the cups, just above the wound. Continued the alkaline poultice, with pulvis nucis vomicæ to the wound. Administered half a grain of podophyllin, with five grains of Dover's powder. Small doses of carbonate of ammonia continued. Ordered chicken broth; he swallowed a half-cupful with difficulty. Visited him in the afternoon. Leg and thigh much swollen to the hip-joint; bathed the limb with a strong decoction of arnica, and applied a firm roller, to be kept wet with the same. Visited him at 9 o'clock in the evening. Symptoms much the same, with sanious fluid escaping from the wound and smaller incisions. Fomented the limb with warm soap suds, and dressed with unguentum hydrargyri nitratis.

3rd day.—Visited him at day-break. Had some rest, from the ethereal anodyne; limb much swollen and sensitive to the touch. Scarified the thigh; a yellowish serous fluid escaped from these incisions. Pain quite abated. Continued the roller and bathing with arnica. Constitutional symptoms somewhat improved; stupor less; pulse more regular, slightly tremulous. Nothing having passed his bowels from the date of the injury, gave him an active cathartic, which produced a free bilious evacuation. Countenance, towards the close of the day, looks better; the pallor, shrinking of the features and sinking of the eye, improved; notices his dog; took some nourishment, the first he has taken since the bite, except the half-cup of chicken broth.

4th day.—Visited him in the morning. General appearances better; constitutional excitement abated, pulse nearly natural, little above the normal standard; swelling of the limb subsiding; perfectly conscious; yellowish serous fluid still oozing from the wounds. Roller and arnica continued, with simple dressings; gave him a dose of castor oil. No aggravated symptoms made their appearance afterwards; appetite returned, and he relished his food. On the 8th day, I allowed him to sit out-doors. He had a protracted convalescence, his recovery not being complete until the following month of September; a tonic was used, composed of tincture nux vomica and equal parts fluid ext. opium, twelve drops three times per day, with occasional use of the pills of podophyllin. This case presented an unusual symptom, as he would swell to such a degree, at stated periods, that his natural appearance was hardly recognizable; this quickly disappeared under simple treatment. Discharged, perfectly cured, the middle of September, 1864.

It will be seen that the boy was struck upon the bare surface, his trowsers being rolled above the knee, the fangs entering deeply with the poisonous virus, into a region where the absorbent vessels are distributed freely. The vital and chemical qualities of the blood, and its constituent properties, are almost instantaneously annihilated by the active conveyance of this virus through the absorbent system to the vital fluid. This boy was saved by the circumstance of my being on the spot directly after he received the bite. The cups and ligatures are hints from the aboriginal mode of treatment in like cases.—*Boston Med. and Surg. Journal.*

Facts and Theories about the Recent Outbreak of Asiatic Cholera.
By JOHN C. PETERS, M.D., of New York.

By a true theory we mean a legitimate deduction from facts, not contradicted by equally numerous and well-substantiated facts. An hypothesis is a very different thing.

We all know how the great outbreak of cholera, in 1865, was carried from Alexandria, in Egypt, by steamships to all parts of Europe, and notably to the Black-Sea ports of Russia, and thence over the whole Russian Empire. Next came the pestilence at Hurdwar, in Northern India, in 1867, which was carried through Northern Persia to the Caspian Sea, and thence across to Russia. Then came the virulent epidemic of 1869 in the Punjab, or extreme northwestern province of India, which was also carried through Northern Persia to Astrabad, a port on the southeastern corner of the Caspian Sea, and from there again over to Russia. These successive outbreaks in Persia and Russia have led to the belief by Dr. Tholazon, of Persia, and Dr. Pelikan, of Russia, that cholera had become naturalized in these two countries. But the annual reports of the sanitary commissioner with the government of India, especially that of 1869 (see p. 220), prove the above facts. Inspector-General Murray has also established the former in opposition to the latter views. The most interesting and important town in Northern Persia, in connection with conveyance of cholera to Europe, is the holy city of Meshed, situated about two-thirds of the way from India toward the Caspian Sea. This city is so holy that no person of any sect called Mohammedan has ever dared to commit the impiety of firing a hostile shot at its walls. For eight months in the year all the roads to and from Meshed are thronged with pilgrims. It is calculated that nearly sixty thousand come up from India, Cabool, and Afghanistan, often bringing cholera with them; and an equal number coming from Turkey in Asia, and the countries between the Black and Caspian Seas, frequently carry it back with them. It is not a little singular, that, among the first

towns attacked in Russia, in 1870 or '71, was the holy city of Kiev on the right bank of the Dnieper, in the southwestern portion of Russia, about one hundred miles north of Odessa, on the Black Sea, and four hundred miles southwest of Moscow. Out of a population of seventy thousand it was losing nearer one hundred than fifty a day from cholera, when almost all the rest of Russia was free from it. About fifty thousand pilgrims come to Kiev every year to visit the relics of the one hundred and ten martyrs to the old Russian faith. It is adorned with a large number of magnificent churches, the great cathedral of St. Sophia, and the palace of the Greek metropolitan. The glittering gilt, green, and varied-colored cupolas on the numerous eminences present a magnificent spectacle from a distance. It is the port and capital of the Ukraine, and is near Poland, Galicia, and Moldavia. It has been the capital of the princes of Novgorod since the ninth century, and Panslavic patriots still look to it as their natural capital. It is magnificent but filthy. The drains, privy-vaults, and out-houses of Kiev are in the most primitive and disgusting condition, and on every hot day a shocking odor ascends from that otherwise glorious town. A distinguished architect once boasted that he had built a thousand houses in Kiev but not one water-closet. It always requires as much sanitary inspection as Meshed or Mecca. The mortality in 1871 among the pilgrims and in the monasteries was very great.

From Kiev cholera spread easily to Poland and down the river Vistula to the Baltic. Last year it had obtained a lodgment not only in Hungary and Poland, but in the Baltic towns of Konigsberg, Elbing, Dantzic, Stettin, and also in Hamburg and Bremen. When cholera commenced in New Orleans, on Feb. 9, 1873, of course the steamers from Northern Germany, which touch at Havre, were first suspected, especially as the first death from cholera in New Orleans was that of a Prussian aged 56, and the next that of a Frenchman.* But so many rumors were raised about vessels from Odessa, the Mediterranean, and the Baltic, that attention was quite diverted from the North-Sea steamers. But the similarity to the outbreak in 1848 and '49 was too great to pass unnoticed. 1. In 1848 the ship Guttemberg sailed from Hamburg, where cholera had prevailed from Sept. 7th, with two hundred and fifty steerage passengers; had several deaths from cholera while still in the Elbe, and arrived at New Orleans on Dec. 6th, after a passage of fifty-five days. She had no more deaths from cholera, but some from diarrhœa and dysentery, and doubtless had infected clothing on board. 2. The bark Callao, from Bremen, with one hundred and fifty emigrants, had eighteen deaths from cholera, the last one on Nov. 8th, doubtless also with infected articles on board. 3. The ship Swanton, from Havre, had seventeen deaths from cholera, arrived

* These proved to be old residents.

at New Orleans on Dec. 11, 1848, and on the 12th a woman was carried from the ship to the Charity Hospital in a state of complete cholera-collapse. One case was traced to the Guttemberg, five or six others to passengers from the ship Swanton, who had not been subjected to quarantine, but had scattered all over the city. Cholera commenced in December, 1848, in New Orleans, almost immediately after the arrival of the Swanton, which is quite unusual in large cities, in which the commencement of an epidemic of cholera is generally very slow. It was suspected, but never could be proved, that other cholera vessels had arrived previous to the Guttemberg, Callao, and Swanton. For, it may be assumed as a fact, when cholera breaks out suddenly and violently in a large town, that many cases of choleraic diarrhœa, cholerine, choleraic cholera-morbus, have been overlooked. It was decided as early as 1848 and '49, in England, that "the popular notion that cholera is sudden in its invasions of large towns or districts is as unfounded as the formerly prevalent opinion that it is always sudden in its attack in individuals."

In 1848 and 1849, in London, Edinburgh, Glasgow, Plymouth, Dundee, Bristol, Liverpool, Hull, and almost every large city in Great Britain in which the first cases were accurately observed, the initial case or cases preceded the others by from one to several weeks (see Dr. Sutherland's report to Parliament, pages 13—17). The first attacks were isolated, and occurred at considerable distances apart as to place, and intervals as to time. This mode of outbreak may be regarded as one of the laws of an epidemic of cholera. As the disease is generally brought by steerage passengers, immigrants, and the poorer class of travelers, the initial cases in large towns generally occur in the low haunts and outskirts. They are widely separated, as if springing from distinct sources of infection, and often occur among old inhabitants, because clothing or fomites have been brought to them, or because they have visited or been visited by some one with choleraic diarrhœa, or cholerine. However this may be, the New Orleans authorities have not yet succeeded in tracing the direct importation of the disease. "From December 1, 1872, to May 1, 1873, no vessel from Odessa, or any other port on the Black Sea, came to New Orleans. From January 1 to May 1, 1873, no vessel from the Baltic came to New Orleans. In January, 1873, *passengers* arrived only from Hamburg, Bremen, and Liverpool. In February, only from Bremen, Port Simon, and Liverpool. In March, from Hamburg, Liverpool, Palermo, Bremen, and Mexico. In April, only from Liverpool, Bremen, Hamburg, and Port Simon. It is claimed that none of these vessels, or any other, had deaths or sickness from cholera. Only two sailors were attacked with cholera, and only one died. Both were from the British ship Belgravia, which had no passengers, was some fifty days on the voyage, and they were taken ill ten days at least after arrival, when Asiatic cholera was already

prevailing, viz., about April 14th and 16th. As the disease was admitted to be Asiatic cholera, and of course was imported in some way, we may have to adopt Prof. Austin Flint's opinion ("Practice of Medicine," fourth edition, p. 499): "There can be little or no doubt that the special cause" (of cholera) "may be transported in clothing and other substances after the manner of fomites. In other words, the disease is portable, without being contagious or infectious." As the first fatal case (the initial cases are not always fatal) occurred on February 9th, we must suspect vessels from Hamburg, Bremen, Port Simon, or Liverpool. As the outbreak commenced with twelve cases in the week ending April 6th, we may suspect vessels from Hamburg, Liverpool, Palermo, Bremen, or Mexico, as bringing the fomites of the disease. As there was more cholera in Hamburg last year than in any other of these places, that is the most probable starting point, although many emigrants from Central Europe, where cholera was prevailing, also came to Bremen and perhaps to Palermo.

The above facts accord with the mode of introduction of cholera into New Orleans in 1848, when vessels from Hamburg, Bremen, and Havre, brought the disease, and the ship Swanton from Havre became infected by German immigrants before there was any cholera in Havre. At that time chests of infected clothing from Pesth, in Hungary, were more than suspected, almost proved, to have brought the disease. According to the latest accounts, there have been no less than one hundred and four thousand deaths from cholera in Hungary this year, up to Sept. 1, 1873, and there were many thousands in 1872, not only in Hungary, but in Poland, Prussia, and notably in the cities of Warsaw, Konigsberg, Elbing, Dantzic, Stettin, Dresden, Leipsic, Hamburg, and other places near the Baltic, and North Sea, or German Ocean.

It is very singular that cholera did not seem to spread down into Texas this year, but appeared to be carried by rail and steamboat to Mobile, Memphis, Nashville, Cincinnati, and many other places.

In Nashville, the mortuary lists are kept by the undertakers only; no cases are reported during life, and generally only twenty-four or more hours after death. Of the first one hundred fatal cases, only twelve or fifteen have been hunted up. According to Dr. Bowling, editor of the *Nashville Journal of Medicine and Surgery*, August 1873, No. 1, p. 87, Mary Payne, colored, who lived near Wilson's Spring Branch, was the first fatal case; she seems to have been a washer-woman, as she *washed* all day on Wednesday, May 28th, and then was seized at night and died in eight hours. Mrs. Patterson, who had been with Mary Payne, was the next victim. J. McKisic, who had been with Mrs. Patterson in her sickness, and lived near her, was the third; and a colored man at the same house, was the fourth fatal case in succession. Mrs. Murray and family moved away from Wilson's Spring Branch

after the death of Mary Payne, and a few days after she and her two sons occupied the same grave. Here are seven correlated cases in succession. The negro villages on the highlands and lowlands outside of the city suffered most severely. Dr. Poynor describes these villages as dense aggregations of little huts, with eight, ten, and frequently more persons crowded into one miserable little hovel. Any cleanly and sanitary precautions about these huts were never dreamed of. Excrement of every character was deposited in, between, and around the shanties. The mortality, of course, was very large, while the cleanest and best parts of Nashville generally escaped, as did Edgefield, a large town just across the Cumberland river.

The panic in Nashville was very great, and fugitives spread the disease all over the country, especially to the railroad stations to the north.

The outbreak in Franklin, Kentucky, has been best observed by Dr. Charles N. Edwards, of that place. He says: "The first well-marked case was that of Mr. H., a citizen of Franklin, who had been employed in Gallatin, Tenn. (just north of Nashville), while cholera prevailed there. He was brought home sick with cholera on June 14th, and was attended by Dr. F. The first fatal case was Mr. G. R., who had also been in Gallatin. Dr. F. was the third case, but recovered; next his child died of cholera; then his washer-woman was, at a distant house, seized, but recovered; then her daughter, who lived with her, died, and her two children."

Louisville escaped, as usual. In Cincinnati, a lady arrived about June 1st, from Nashville, nearly died of cholera, and then went on to Wheeling, West Virginia. One or more infected steamboats arrived from New Orleans and Memphis, and some of the most distinguished physicians of Cincinnati, those of the highest social and professional standing, informed me that cases could be traced to these vessels. In some of the hospitals which I visited, no record was kept of the names of the boats, streets, or numbers of the houses, from which the cases came. The first fairly-recognized fatal case occurred on June 14. The majority of the well-educated physicians of Cincinnati regarded the disease as true imported Asiatic cholera. The newspapers and health authorities regarded it as indigenous, as purely local in its character, and caused principally by imprudencies in diet. It was not regarded as communicable in any way; none but fatal cases were reported, and then only from one to two days after death. The city authorities gave very little assistance to physicians in their struggle with the disease. Disinfectants were very imperfectly employed. The general sanitary measures were reasonably good. Many of the fatal cases were reported in the newspapers, after June 14th, with name, residence, and duration of attack. The highest number of reported deaths on one day was seventeen, on June 28th. Then

the disease persisted obstinately as a pure house epidemic nearly to September. There were many mild cases, and from two to four or more fatal cases a day. It spread from families to friends, until the disease was finally scattered or sprinkled thinly all over the city.

Cholera lingered in Cincinnati longer than in any other Northern city. And it always seemed, if Dr. Budd, of Bristol, and his efficient aid, Dr. Davies, had been there, the epidemic could have been stamped out in a week or two. In Dayton, Columbus, Indianapolis, Pittsburgh, Wheeling, Chicago, and other places, active sanitary measures quickly checked the outbreaks.

Chattanooga, Lebanon, and other places, received the disease from Nashville (see *Nashville Journal of Medicine and Surgery*, October, 1873, pages 193, 194 and 211). The history of cholera at Lancaster, Kentucky, described by Drs. Berry and Wilson (see *American Practitioner*, October, 1873, pages 103 to 197), is the best record of an outbreak yet published. The first case was imported from Jonesboro, Tenn., where cholera was prevailing, but did not prove fatal until two others contracted from it had succumbed. Of forty cases, only seven recovered. All were traced to communication, or to the rise of water from Tate's Well, contaminated by discharges from the first and other cases. The North-German steamers have lately brought cholera to Havre, and from there it has been carried up to Paris.—*N. Y. Med. Jour.*

A Case of Rheumatic Fever Treated with a Cold Bath; Death occurring immediately on leaving the Bath. By SYDNEY RINGER, M.D.

These short notes are published, as this case will help to answer the following questions: Can cold baths be administered in rheumatic fever without danger? and is it advisable before employing this treatment to wait for the onset of hyperpyrexia? or should we commence it when high fever, absence of joint pain, suppression of perspiration, and delirium, show that there is danger that hyperpyrexia may occur? As hitherto all cases of rheumatic hyperpyrexia have proved fatal unless treated by cold baths, it is obvious that this case in no way contra-indicates that treatment on the occurrence of this dangerous condition.

A young woman, aged 24, was admitted into University College Hospital with rheumatic fever. Her father died suddenly from some unknown cause. Four years before, the patient suffered from a severe attack of rheumatic fever. Her present illness begun about a week before her admission into hospital. On her admission she suffered from a sharp attack of rheumatic fever; her temper-

ature rising daily to 103°. There was not, however, much joint affection, and at first she perspired freely, but latterly her skin grew dry. She rapidly got worse: thus during the nine days she was in hospital her temperature rose daily till it reached 105°, and her respirations rose from 32 to 60; her pulse remained about 120 per minute, and throughout was strong. Latterly she suffered from dyspnœa, and subsequently was propped up in bed with pillows. She wandered a little at night, and on the day the bath was employed her intellect was a little obscured, and she passed her urine under her. At 7.42 P. M. of the ninth day of her admission she was placed in a general bath of 92°, her temperature in the axilla being 105° Fahr. In seven minutes, and before the temperature of the bath was reduced, her rectal temperature was 105.8°; the temperature of the bath was then reduced. In eighteen minutes after the commencement of the bath her rectal temperature was 105.4°. After forty-four minutes her temperature had fallen to 103.4°, the temperature of the bath being 69°. Whilst in the bath she took 4 ozs. of brandy. She was removed because her breathing grew rather shallow. After being put to bed she merely gasped a few times for five minutes and died, notwithstanding the employment of artificial respiration, energetic friction to the surface of the body, and anal injections of brandy. At the post-mortem examination we found a few patches of recent lymph on both lungs, but not an unnatural quantity of serosity in the pleuræ. The heart was universally adherent to the pericardium, the adhesions being tough; the blood in the heart and great vessels was very dark-colored fluid and free from clots. The left ventricle and auricle were dilated—especially the auricle. On the tricuspid, mitral, and aortic valves, numerous minute vegetations were seen at the usual places. The mitral, aortic, and pulmonary valves were a good deal thickened. The mitral valves admitted three fingers nearly to the knuckles; the two segments were united for a short distance; they permitted some regurgitation when tested at the tap. The heart's substance looked healthy, and was of fair consistence. On the surface, at places, there was a thin line of paler and rather opaque tissue. The walls of the left ventricle at the base were half an inch thick, at the middle five-eighths of an inch, and at the apex rather less than quarter of an inch. The brain, liver, spleen, kidneys, stomach, and intestines, were healthy. During life her urine contained a trace of albumen.—*The Practitioner.*

Recovery from Bite of a Rattlesnake. By W. F. C. BEATTIE, M.D., Cornwall, N. Y.

At 7 A. M., June 28th, Joseph Hulse, aged fifty-two years, (living a hermit's life in the mountains), seized a live rattlesnake by the neck with the naked hand. The snake, having play enough of head, inserted his fangs at the second joint of the right index-finger. At 10 o'clock, A. M., after walking three miles in the hot sun, Hulse presented himself, pale, trembling, and cadaverous, reeling, when attempting to walk, like a drunken man, and frequently falling as though dead, but immediately recovering muscular power when in a prone position, and then able again to rise. I assisted him to a neighboring barn, and placed him on a bed of straw. His pulse was 160, with frequent intermissions. His hand and arm were fearfully swollen, and there was ecchymosis of the arm and the anterior part of the chest. The mind was somewhat incoherent. Fearful as seemed the train of symptoms, I immediately laid open the wounded finger through an inch of gangrenous flesh at the seat of injury. He then swallowed half a pint of Bourbon whisky, and repeated the dose every five minutes until he had taken one quart. The first effect was to reduce the pulse to 100 per minute, and tranquillize the mind. Then profound inebriation ensued. The arm was laid in a large poultice of mud, the first effect being to cause loud complaints of pain at the seat of injury, although there had been no sensation on using the lance. After four hours of stupor the patient awoke, when an empiric, in my absence, cleansed his arm and very tightly bandaged fingers and arm above the elbow. In this condition he was conveyed to the poor-master. Word was left that I need not see him until morning, when I found, to my horror, that the circulation was so completely cut off, that on removing the bandage, incipient gangrene of the sore finger had occurred. Vitality, however, was restored, and the finger got well after a sloughing process. I now ordered milk, with the addition of a teaspoonful of whisky, the whisky to be increased to a tablespoonful when the stomach would bear it, and to be taken *ad libitum*. I then ordered sesquicarbonate of ammonia, grs. x, every two hours, and administered three compound cathartic pills. In the afternoon an officious friend applied a white-ash bark ligature at the middle of the arm so tightly that serum exuded, which a bystander warned me not to interfere with, as it was the "poison coming out." There was now obstinate hemorrhage from the gums and from the wound in the finger, which was checked by perchloride of iron, and an elevated position of the arm. The blood had lost its property of coagulating, and lay for hours, in the hot sun, fluid as turpentine. This seemed proof positive that the poison had permeated the system. After a few days of the above treatment, I ordered tonics, and four weeks later the man was at work. I think we may learn from this case that a rattlesnake-bite, although the poison has impregnated the system, is not necessarily fatal.—*New York Medical Jour.*

Editors' Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.]

The Physicians' Visiting List for 1874.

The name of "Lindsay & Blakiston" has become so familiar to physicians, who have carried it about in their pockets, stamped upon the "tuck" of their "Visiting List," that it has become identified with their financial as well as their literary interests. The age of this little pocket companion, twenty-three years, is the best commentary upon its value.

To the vast majority of medical men the "Visiting List" would be an economical investment at ten times its cost. H.

The Physicians' Hand Book for 1874. By WILLIAM E. ELMER, M.D., and ALBERT D. ELMER, M.D., New York. W. A. Townsend, publisher. 1874.

An excellent manual for recording and preserving memoranda not only of visits paid and to be paid, but also of clinical observation and experience, with much valuable matter beside, in the shape of a list of poisons and antidotes, designed, as far as possible, to provide the practitioner against every emergency. It has acquired large popularity, and has become indispensable to many physicians. H.

A Manual of Midwifery, including the Pathology of Pregnancy and the Puerperal State. By Dr. KARL SCHRŒDER, Professor of Midwifery and Director of the Lying-in Institution in the University of Erlangen. Translated into English from the third German edition, by CHARLES H. CARTER, B.A., M.D., B.S., London, etc., etc. With twenty-six engravings on wood. New York: D. Appleton & Company. 1873.

The Messrs. Appleton are entitled to the thanks of the profession for this, the first American, edition of Schrœder's Manual, the best upon the subject with which we are acquainted. It is the result not only of exhaustive and laborious research into the

literature of gynæcology, but of thorough and accurate practical familiarity with the subject. The style of the book is one of its chief merits—it is concise, clear, and emphatic, without becoming dogmatical. Free from useless verbiage, the author says more in three hundred and eighty pages, and says it better, than is usually expressed in twice the number. His views and opinions seem to be "up to the times," and in harmony with the results of the most recent investigators. The author is to be commended most highly for appending his citations of evidence from authorities, in the form of simple references as foot notes, instead of resorting to the trick of "padding" by voluminous quotations, a modest octavo into a ponderous tome. H.

The Student's Guide to Medical Diagnosis. By SAMUEL FENWICK, M.D., F.R.C.P., Assistant Physician to the London Hospital. From the third Revised and Enlarged English Edition. With eighty-four illustrations on wood. Philadelphia: Henry C. Lea. 1873. Pp. 328.

This book, we are informed, grew out of a want which the writer experienced whilst teaching, clinically, in the hospital with which he is connected. Hence it is thoroughly, and we might almost say, intensely, practical throughout. Most works on the subject devote a large portion of their space to discussions of rare and "interesting" cases—such as are exceedingly exceptional in general practice. Its constant reference to physiology and pathological histology, as now taught, are peculiarly refreshing to those of us who believe that both these departments of knowledge are indispensable and invaluable to the physician of the present generation.

By the aid of its numerous *genuine* illustrations, the text is rendered comprehensible, almost at a glance.

The order of exposition of the varied topics coming under review is admirable, and while we regret the necessity felt by the able author of keeping the volume within such modest limits, it is due to him to state that we have rarely seen so much positive instruction concentrated in clear, as well as concise, form in so small a book. It is most cordially and conscientiously recommended to all medical students, whether they have or have not as yet gained their M.D. A.

The Preventive Treatment of Calculous Disease, and the Use of Solvent Remedies. By Sir HENRY THOMPSON, F. R. C. S., Surgeon Extraordinary to H. M. the King of the Belgians, Surgeon and Professor of Clinical Surgery to University College Hospital. Philadelphia: Lindsay & Blakiston. 1873.

This little work of seventy-two pages consists of two lectures delivered in answer to numerous inquiries addressed to their distinguished author upon the subjects designated. The reputation of the author as an authority upon this and kindred subjects is exceeded by that of no one living, hence such a production of his pen cannot fail to possess great practical value. He reprobates strongly the too common superficial practice of removing symptoms, *i. e.*, urinary deposits, under the presumption that thereby the morbid condition of which this is a result only, is removed, and urges the necessity of radical constitutional modifications.

Sir Henry, as might be expected, is a warm advocate for the method of removing calculi by the operation of lithotripsy, that being the special proceeding upon whose successful application so much of his well merited fame is based. He is not very enthusiastic about the practicability of removing these concretions by solvents nor by electrolysis. H.

Lacerations of the Female Perineum and Vesico-Vaginal Fistula—their History and Treatment. By D. HAYES AGNEW, M.D., Professor of Surgery in the University of Pennsylvania. With numerous illustrations. Philadelphia: Lindsay & Blakiston. 1873.

Many valuable contributions to medical literature are practically lost to the majority of the profession, from having been published seriatim in journals and subjected to the accidents necessarily pertaining to a file of periodicals. The labor involved in their examination often involves such a serious waste of time, as to result in their being consigned to unmerited oblivion.

The collection and publication in book form of such papers is a work deserving the highest commendation, and especially so, when they possess so much real merit as these of Dr. Agnew. The little volume is a condensed summary of all that is worth knowing, to the general practitioner, concerning the subjects of which it treats, and we know of few more valuable little books. H.

Annual Report of the Surgeon General United States Army, 1873.

The financial statement of the "Report" shows that the expenditures of the medical department of the army have been made with rigid economy, the average expense per capita of cases being exceedingly small, *i. e.*, less than five dollars.

The portion devoted to the "Health of the Army during the fiscal year, ending June 30, 1873," presents some interesting information. From this it appears that the ratio of sickness and of casualties was greater among the white than among the colored troops. This difference in the ratio is still more marked, in the same direction, when we read the number of "disability discharges."

The "Army Medical Museum" has now become an object of interest to the medical profession throughout the country, and it is gratifying to perceive the evidences of its continued increase in the number and value of its specimens.

Of the "Medical and Surgical History of the War," five thousand copies have been distributed. The eagerness with which they have been sought for by the profession generally, constitutes the best testimonial of their value.

We take the liberty of quoting the language of the Surgeon General from page eleven of the "Report," upon a subject which we think demands the sympathy and hearty co-operation of every medical man in the country who has the honor of his profession at heart. He says: "I am compelled to again repeat the statement made in previous reports, that very serious and increasing injury has resulted to the service from the continued prohibition of appointments and promotions in the medical corps. The inducements of pay and rank as at present established, are not sufficient to make the service attractive or remunerative to physicians already engaged in practice, and though, through the prerequisite examination of candidates, it has heretofore been found possible to secure a high grade of talent and qualification, it is upon the younger portion of the profession, the recent graduates, that we must depend in filling up existing vacancies. As a large proportion of applicants fail to pass satisfactory examinations (which require in each case from three to six days,) it will be the work of several years to restore the corps to the necessary standard of numbers, as provided for in the Act of Congress approved July 28, 1866.

"Although ambition to pass the Army Medical Board brings forward many of the most prominent graduates of medical colleges, additional inducements of rank, pay and promotion are becoming more and more necessary, not only to make the number of candidates equal to the needs of the service, but to retain the most desirable of them in the service under their frequent inducements to accept advantageous offers in civil life.

"The action of the American Medical Association, representing the medical profession of the country, regarding the unequal position of medical officers of the army, as compared to that of other staff corps, is based upon actual investigation of the subject, and presents to Congress all the facts in the case. I can only urge most earnestly upon your attention the pressing and absolute necessity for such legislation as will secure to our officers and soldiers the efficient and reliable attendance in wounds and sickness which the Government should provide, and will make a position in the medical corps of the army, now as formerly, an object of ambition to the best educated and best qualified young men in the profession."

There are "at present sixty-four (64) vacancies in the corps, viz., two (2) assistant medical purveyors, five (5) surgeons, fifty-six (56) assistant surgeons, and one (1) medical storekeeper."

We have quoted the above at length, as it expresses much more clearly than we could do, the great injustice done to a large number of the most accomplished and deserving members of our profession, by reason of the niggardly policy of Congress, in restricting the appropriation for the pay of the department.

We have had the opportunity, to some extent, of observing personally some of the evils of which the Surgeon General complains, and most heartily endorse every word of the above quotation. We ask, therefore, every one of our readers to use his influence directly and personally with his Representative in Congress to induce him to remedy this great injustice. In thus aiding the Army Medical Corps in securing their rights, he will be rendering most efficient service to his own profession, and thus help himself. We believe if every one of our readers will make it his business to comply with our request, the object will be accomplished. H.

Memorial of the American Medical Association with regard to the Rank of the Medical Corps of the United States Army.

The pamphlet with the above title embodies one of the most meritorious works of the American Medical Association, and if the object therein set forth be accomplished, the Association will not have lived in vain. The idea of republishing in pamphlet form their action upon this matter was good, as it will thereby reach many who would never have found it amidst the dry details of the ordinary "Transactions."

Editorial comment would be superfluous, inasmuch as we have already expressed ourselves very decidedly upon the injustice done by Congress to the Army Medical Corps. This Memorial should have a much wider circulation than the Transactions will probably have. H.

A Graceful Tribute.

We have received from Mr. Henry C. Lea, of Philadelphia, the American publisher, a "preface" for the American edition of Taylor's Principles and Practice of Medical Jurisprudence, which was accidentally delayed until after the publication of the work. We have already noticed this great work editorially, but nevertheless feel that so graceful a compliment to one of our own country and profession deserves special notice and republication in full, viz:

"In the year 1825, when a medical student at Guy's Hospital, I accidentally met with a work entitled 'Elements of Medical Jurisprudence, by Theodoric Romeyn Beck, 2nd ed., with notes by W. Dunlop." I have that volume now before me, and I well remember the deep interest with which I read and studied its contents. I was then a student of two years standing, and the subject, from the lucid manner in which it was treated by the author, fixed my attention, and induced me for the time to put aside anatomy and physiology for the sake of this new branch of medical science. No lectures on the subject were then delivered in England, and Dr. Beck's work was the leading authority for lawyers and medical men.

"I believe that the sight of this book was the turning point of my selection of Medical Jurisprudence as a special object of study and practice. After six years of medical study in the schools of England, France and Italy, I received the appointment of Lecturer on Medical Jurisprudence from the Treasurer and Governors of Guy's Hospital, and from March, 1831, I have delivered an annual

course of lectures on this subject in the medical schools connected with the hospital.

"In looking back over the forty-eight years since I received my first lesson in Medical Jurisprudence from the work of the late Dr. T. R. Beck, it is a great gratification to me to feel that I have been able to contribute to the literature of the science, and that my contributions have been so highly appreciated in the country which gave birth to Dr. Beck. For many years his was the only work on the subject in England and America.

"It is a satisfaction to me to know that I have been able to make some return to the country of his birth for the impulse which the study of his excellent treatise gave to me in my early days as a medical student. Dr. T. R. Beck has passed away, but his work, which had reached a tenth edition in 1851, will carry down his name to future years, as one of the most erudite and distinguished writers on Medical Jurisprudence."

BOOKS RECEIVED.

The Theory and Practice of Medicine. ROBERTS. Lindsay & Blakiston.

An Essay on the Principles of Mental Hygiene. By D. A. GORTON, M.D. J. B. Lippincott & Co.

Mind and Body. By Sir BENJ. BRODIE. William Wood & Co., New York.

Bowman's Practical Chemistry. Henry C. Lea, Philadelphia.

Lectures on Diseases and Injuries of the Ear. By W. B. DALBY, F.R.C.S.E. Philadelphia: Lindsay & Blakiston.

JOURNALS RECEIVED.

The Practitioner—October and November, 1873. McMillan & Co.

The American Practitioner. Louisville: J. P. Morton & Co.

The Medical Record—November and December, 1873. Wm. Wood & Co., New York.

The New York Medical Journal—November, 1873. D. Appleton & Co., New York.

Philadelphia Medical Times—Oct. 25, Nov. 1, 8, 15, 22, 29. J. B. Lippincott & Co.

The Obstetrical Journal of Great Britain and Ireland—October and November, 1873. Henry C. Lea, Philadelphia.

The Medical and Surgical Reporter, Nos. 17, 19, 20, 21, 22, 23. S. W. Butler, M.D., Philadelphia.

The American Journal of the Medical Sciences—October.

The London Medical Record. G. P. Putnam & Sons, New York.

The London Lancet—Oct. and Nov., 1873. William C. Herald.

The Southern Medical Record—Oct. and Nov., 1873. Atlanta, Ga.

The Canada Medical Record. Montreal, Sept., 1873.

The Richmond and Louisville Medical and Surgical Journal. E. S. Gaillard, M.D. Oct. and Nov., 1873.

The Druggists' Circular, New York, Nov. and Dec., 1873. Hagerty Bros. & Co.

North-Western Medical and Surgical Journal, St. Paul, Nov. and Dec., 1873.

The Medical News and Library—Nov. and Dec., 1873. Philadelphia: Henry C. Lea.

Atlanta Medical and Surgical Journal—Sept. and Oct., 1873.

St. Louis Medical and Surgical Journal—Nov., 1873.

The Indiana Journal of Medicine—Nov., 1873.

The Ohio Medical and Surgical Reporter—Nov., 1873.

The Western Lancet, San Francisco, Oct., 1873.

Boston Journal of Chemistry—Nov. and Dec., 1873.

Pacific Medical and Surgical Journal—Nov., 1873.

The Nashville Journal of Medicine and Surgery—Nov., 1873.

The Detroit Review of Medicine and Pharmacy—Nov. and Dec., 1873.

The Kansas City Medical Journal—October, 1873.

The Eclectic Medical Journal—Nov. and Dec., 1873.

The Cincinnati Lancet and Observer—Nov., 1873.

The Canada Medical and Surgical Journal.

The Clinic—Nos. 16, 17, 18, 20, 21, 22.

Le Progres Medical, Bonneville, Paris. No. 11, 13, 14, 15, 16, 17, 18, 19, 20.

The Dental Cosmos—Nov., 1873.

Buffalo Medical and Surgical Journal.

The Medical Eclectic.

The Medical Examiner, Chicago, Nov. 1 and 15, 1873.

The Pharmacist, Chicago, Nov., 1873.

The Medical Herald, Leavenworth, Kansas, Nov. 1, 1873.

PAMPHLETS RECEIVED.

Medical Society of New Jersey. Transactions. 1873.

American Otological Society. Transactions. 1873.

The Function of the Eustachian Tube. By THOMAS F. RUMBOLD, M.D., St. Louis, Mo.

On the Granular Cell found in Ovarian Fluid. By THOMAS DRYSDALE, M.D., Philadelphia.

Memorial of the American Medical Association with regard to the Rank of the Medical Corps of the U. S. Army.

Annual Report of the Surgeon General U. S. Army, 1873.

Proceedings of Medical Association of the State of Arkansas.

Fetal Physical Diagnosis. By FRANK C. WILSON, M.D., Visiting Physician to the St. Louis City Hospital.

Smithsonian Miscellaneous Collection. No. 266, Toner Lectures. Lecture 1.—On the Structure of Cancerous Tumors, and the mode in which adjacent parts are invaded. By J. J. WOODWARD, Assistant Surgeon U. S. A.

Mortality Experience of American Missionaries. NATHAN WILEY.

White Sarcomatous Intra Ocular Tumor. Intra Ocular Tumor, White Tusiformed Cell Sarcoma, Enucleation. Hespes Zoster Ophthalmicus. Traumatic Rupture of the Choroid. Papers by B. JOY JEFFRIES, Boston, Mass.

Description of New Instruments for making Examinations of the Cavities of the Nose, Throat and Ear. THOMAS F. RUMBOLD, M.D., St. Louis, Mo.

Evidences of Life in the Newly Delivered Child. By WILLIAM B. ATKINSON, M.D., Philadelphia.

Expert Testimony. By THAD. M. STEVENS, M.D., Indianapolis.

Du Traitement des Retrecissements de l' Urethre par la dilatation progressive. Travail Couronnee par la Commission du Prix Civiale pour l' Anree. 1872. Par T. B. CURTIS, Boston, Mass.

We have just received a number of the organ of this "University," and have never seen a more impudent summary of quackery and general rascality in print.

It is stated elsewhere, that the graduates of this concern are to be found in "Chicago" and other places designated. We hope that a list of these "graduates" with their residence may be published, not only in the medical journals but in the secular press likewise. A little gratuitous advertising of these vagabonds will subserve the public interests materially. This is the second time that the JOURNAL has taken occasion to direct attention to this den of thieves, in view of which fact, the sending of their pamphlet is decidedly cool.

Will not our Philadelphia exchanges favor us with a list of the alumni (!) of this "University" who have honored (?) this city with their presence? H.

"Crowner's 'Quest."

Since our last issue we have had a new edition of the old story, "One more unfortunate . . . . gone to her death," or rather done to death with that most diabolical weapon, the abortionists' bougie.

It is perhaps only just to the jury of inquest to believe that they acted in good faith in presenting Dr. Earle and the husband, Hill, to the grand jury as principal and accessory to the murder of the woman Hill, but a little consideration would have shown them the folly of such a course, and the impossibility of securing an indictment of the accused parties upon such a charge. The legal definition of murder, being, we believe, the felonious destruction of human life with malice aforethought, there was not the slightest evidence adduced at the inquest to show that either of the accused parties, or indeed that any one else, ever designed the killing of Mrs. Hill; on the contrary, the presumption is strong that this was an act of the drama not set down in the programme, and would have been prevented had it been possible. That the woman died from the results of an abortion was clearly established, and that the perpetrators of the crime might readily have been detected, and should have been punished to the full extent permitted by the technicalities of the law, is also certain; but we cannot evade the conviction that the attention of the jury was

occupied with the incidental features of the horrible transaction, to the exclusion of its essential element.

The complaint is a standing one, that abortionists cannot be convicted; the reason is obvious, they are rarely arraigned, and still more rarely tried upon the true issue. If some poor woman is slaughtered by their lack of skill, they may perhaps, as in this case, be arraigned for her murder, and as in this case, cannot be convicted for lack of evidence to sustain the charge.

But we assert that there was *murder*, "*murder most foul*," murder sufficiently clear to satisfy the most minutely technical definition of the law, *i. e.*, the felonious killing of a human being with malicious intent. Until the statute law ceases to exclude the fœtus in utero from the category of human beings, until it throws its protection around them also, the massacre of the innocents will go on unchecked, and the pariahs of the profession will thrive and grow fat, and will pamper their declining years with their ill-gotten gains, will shelter their gray heads beneath pretentious roofs, loll their bloated carcasses in comfortable carriages, clothe their wives, their children and *even grand-children* in luxurious garments, all purchased with the price of blood, tribute to their surgical (!) skill, whose sole armamentum chirurgicum is the bougie.

Let physicians exempt from the rule of professional confidence all applications to produce abortions, by whomsoever made, and the public will soon be able to identify these excrescences upon the profession, already well known to the profession itself. H.

OBITUARY.

The late Dr. Milton Parker.

At a regular meeting of the Chicago Medical Society held on Monday evening, December 15, 1873, the following resolutions were passed:

WHEREAS, It has pleased Divine Providence to remove from our midst, Dr. Milton Parker, after a long life of activity and usefulness—

Resolved, That in his death the medical profession has lost a competent and conscientious member, humanity an exemplar, and society an accomplished gentleman.

Resolved, That the Chicago Medical Society deeply deplores the bereavement of the family and friends, and extends to them its heartfelt sympathy.

Resolved, That a copy of these resolutions be furnished for publication to the medical journals and daily papers of the city, and that the family and friends be informed of the action of the Society.

Joseph Woodward—Resolutions of Respect.

At a meeting of the students of Rush Medical College, held on Thursday, Nov. 6, 1873, to commemorate the death of Joseph Woodward, a member of the Senior Class of 1873–4, the following resolutions were unanimously adopted:

WHEREAS, Death has again painfully reminded us that we are mortal, in the removal of our fellow student, Joseph Woodward, a senior member of the Class of 1873-4, November 5, 1873, and, whereas we desire to give an expression of our sympathy with friends, and offer a tribute of respect to him, therefore—

Resolved, That in our deceased classmate, Joseph Woodward, we recognized and admired all those noble qualities which make the true man and the earnest student, and that, in his death, not only we, his classmates, but the future of the profession and the world have met with an irreparable loss.

Resolved, That the heartfelt sympathy of the Class of 1873–4 is hereby tendered the bereaved wife and family of the deceased in their great sorrow.

Resolved, That a copy of these resolutions be transmitted to the bereaved family, and published in the CHICAGO MEDICAL JOURNAL.

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

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ARTICLE I.—*Staphyloraphy and Uranoplasty.* By JNO. E. OWENS, M.D. Read before the Chicago Society of Physicians and Surgeons, August 26th, 1873.

We have no record of Staphyloraphy, much less of Uranoplasty, amongst the ancients. The honor of the first successful case of the former is generally conceded to Roux, of Paris, but the operation dates somewhat further back than its performance by this surgeon. Robert, in his "Memoirs on Various Medical Subjects," published in 1764, says: "A child had the palate cleft from the velum to the incisor teeth. Lemonnier, a very skillful dentist, endeavored and succeeded in reuniting the two borders of the cleft, first inserted several points of suture in order to keep them approximated, and afterwards abraded them with a cutting instrument. An inflammation supervened, which terminated in suppuration, and was followed by the reunion of the two lips of the artificial wound. The child was perfectly cured." After making every allowance for the inaccuracy of the times, one can

scarcely doubt that Lemonnier's patient had a cleft palate, and that Lemonnier himself performed a staphyloraphy, and perhaps, also, uranoplasty. Forty-nine years later (1813), M. Colombe made various trials of the operation upon the dead subject, and two years afterwards, a patient upon whom he wished to operate, refused. It seems, then, that the operation is entirely French. Graefe, in 1817, published the details of its performance (staphyloraphy), dating his operation at the end of 1816. His effort was unsuccessful, and barely escaped notice. In 1819, Stephenson, a young physician, presented to Roux the first opportunity for the performance of staphyloraphy, which proved successful, and Stephenson himself published his cure in a thesis in 1821, in London. One year later, Mr. Alcock, probably enlightened by Stephenson's paper, was as successful as his French cotemporary. It was at this time that a controversy arose as to the right of Graefe or Roux to priority. The latter, it seems, was not aware of what had been done by his neighbor across the Rhine. We have strong reason, however, to believe, as already mentioned, that its performance antedates both that of Roux and Graefe. Shortly after Roux's operation, Dr. Jno. C. Warren, of Boston, not being aware of what had been done in Europe, performed the same, and invented new instruments for it. Under favorable circumstances, staphyloraphy is neither very difficult nor very painful, but it is a long and delicate operation, and requires much endurance on the part of the patient and surgeon. The former must be sensible of the importance of the operation, and not only willing, but capable of co-operating with the surgeon, otherwise the task becomes one of the most difficult in surgery—often, indeed, an impossibility. To attempt a detailed description of the operation as performed by different surgeons, or the instruments used by them, would tax the patience of this audience too severely, and perhaps unnecessarily lengthen this paper. Suffice it to say, that the operation consists of three steps, viz.: paring the edges of the cleft; introducing the sutures; approximating the flaps and knotting the threads.

In 1843, staphyloraphy was probably seventy-nine years old. It had been performed many times in this country, and in France, Germany, and England, with many successes and many failures. In this year (1843), Dr. J. Mason Warren, of Boston, published in

the *New England Quarterly Journal of Medicine and Surgery* an account of an important modification of the operation of staphyloraphy. This modification by Dr. Warren renewed the interest of the profession, and divulged the secret of many failures. Here are Dr. Warren's own words: "The improvement to which I alluded, in the operation upon the soft palate, consisted in the relaxation of the tissues of the fissured velum, by means of incisions, made with strong curved scissors, so as to divide the attachments of the soft palate to the tonsils, and to the posterior pillar, or, in other words, dividing the posterior pillar of the palate just where it begins to spread out into the velum. The effect of this incision is at once seen in the almost complete relaxation of the parts." Again, the same author says: "In subsequent operations, however, I found that there existed, in some cases, an additional obstacle to the approximation of the flaps, which could be overcome as easily, and in the same manner as the former. This obstacle consists of a band of firm tissue, extending above and behind the soft palate, and standing in bold relief when that organ is put on the stretch by drawing upon it with the forceps. This resisting mass, like the other, I have always divided by an additional stroke or two with the scissors, whenever the incision of the posterior pillar and adjacent mucous membrane has seemed insufficient properly to relax the palate."

One year later, 1844, Mr. Fergusson, now Sir Wm. Fergusson, after the dissection of a specimen of cleft palate, adopted a method of relief to the tension of the flaps, very similar to that of Warren's, last described. The muscles divided by both Warren and Fergusson are the levator palati, the palato-pharyngeus, and sometimes the palato-glossus on each side. The levator palati muscle is best reached by Pollock's method, in which a narrow, sharp-pointed knife is passed upwards and backwards, and somewhat inwards, through the palate, close to, a little in front and to the main side of the hamular process of the sphenoid bone. (Location of process.) By this relief of tension staphyloraphy seems to have been perfected in its essential features, and the percentage of failures greatly reduced.

Now, gentlemen, all that has been said as yet in this paper refers to the operation as applied to adults, and without the aid

of anæsthetics. In nearly all of our surgical treatises we are directed to wait till the period of puberty, at least, before attempting the cure of such malformations as those under discussion, the patient not being capable before that time of rendering to the surgeon the required assistance. Of late, however, it has been shown conclusively that the operation can be successfully performed on very young children, infants indeed, and that, too, with the aid of chloroform. Mr. Thos. Smith, of St. Bartholomew's Hospital, was amongst the first to introduce chloroform in operations on the palate in children. The same surgeon has further facilitated the various steps of the operation by the application of a gag for keeping the jaws apart during the operation. His paper was dated Jan. 14, 1868. From the "Surgical Treatment of Children's Diseases, by Holmes," 1869, I extract this note, which shows that Mr. Smith was not the first to use chloroform in this operation. In the *Dublin Quarterly Jounal* for Nov. 1, 1867, the following sentence occurs: "Mr. Collis, of the Meath Hospital, gives it (chloroform) habitually, and has been able to operate with success on very young children." "Mr. Durham, also, had operated four times under chloroform before the date of Mr. Smith's paper." "In one case aged (8½ yrs.) complete success was obtained in two operations." "The other two cases did not succeed." A successful case at the age of four months, operated on by Mr. F. Buszard, of Northampton, Dec. 15, 1867, will be found reported in the *Brit. Med. Jour.*, April 11, 1868.

The following table of cases gleaned from the last mentioned work, exhibits, so far as they go, the results of these operations, probably on the soft palate, under the influence of chloroform. I have added my own (on the hard palate) under the influence of æther:

No.	Age.	Result.	Surgeon.	Degree.	No. opera's.	Remarks.
1	6 m.	Failure.	Billroth.	0	0	
1	0	"	"	"	"	
1	28 wks.	Successful.	"	Complete.	3	Langenbeck's method.
1	0	Failure.	"	0	0	Some union.
1	0	"	"	0	0	
1	Infancy.	"	Langenbeck.	0	0	
1	"	"	"	0	0	
1	2 yrs.	"	Smith.	0	2	1 failed from scarlatina.
1	2 yrs 11 m.	Doubtful.	"	0	2	1 union had taken place, but cough set in and a good deal gave way.
1	3 yrs. 2 m.	Probably successful.	"	"	2	Last seen a week after operation—had every appearance of success.
1	5 yrs.	Successful.	"	0	0	
1	6 yrs.	"	"	0	0	
1	9 yrs.	"	"	0	0	
1	10 yrs.	"	"	0	0	
1	13 yrs.	"	"	0	0	
1	13 yrs.		"	0	0	Operation had only just been performed.
1	8½ yrs.	Successful.	Durham.	0	2	
1	Childhood.	Failure.	"	0	0	
1	"	"	"	0	0	
1	4 m.	Successful.	Buszard.	0	0	
1	11	"	Owens.	Complete.	1	Operation upon hard palate only. Completed with æther.

Of the twenty-one cases tabulated, nine were successful, one was doubtful, one probably successful, having been last seen a week after the operation with every prospect of success; in one the operation had just been performed, and nine were failures. Mr. Smith, with the aid of his gag and chloroform, nine cases. Five of these were successful, one doubtful (scarlatina), one probably successful; in one the operation had just been performed, and one operation failed. The ages ranged from four months to thirteen years. Although Mr. Smith cannot claim precedence in the performance of this operation on young children, with the aid of chloroform, it is certain that his name is well known in connection with it, and that he has done more than any other surgeon to bring it to the notice of the profession. He has likewise obtained the most gratifying results. Indeed, gentlemen, the operation of staphyloraphy has been now so perfected at home and abroad, that there is little to look for, perhaps, beyond improvement in operative details. We may the better appreciate this, when we reflect upon the fact that the earlier attempts at abrasion of the cleft were made with the mineral acids, caustic potash, tr. canthæ, lapis infernalis, and the hot iron.

We will now leave the subject of staphyloraphy, or the operation for the closure of clefts in the soft palate, in order to consider

uranoplasty, or that operation which has for its object the closure of clefts in the hard palate or roof of the mouth.

In former times, nearly all fissures extending into the hard palate were rejected as unfit for operation. We should not overlook the fact, already mentioned, that the child upon whom Lemonnier operated, as reported by Robert, in 1764, was *perfectly cured*, and that the cleft extended from the velum to the incisor teeth. This is probably not only the earliest record of staphyloraphy, but also the earliest mention of uranoplasty. However, in 1843, when Dr. J. Mason Warren published in the *New England Quarterly Journal of Medicine and Surgery*, the account of his important modification of the operation of staphyloraphy, he included an account of a new operation for the closure of fissures in the hard palate. The right of priority is usually, but it seems erroneously, conceded to Dr. J. Mason Warren. There seems to be some diversity of opinion as to what really is Dr. Warren's operation. In the first volume of Velpeau's Operative Surgery, we find Warren's operation mentioned in the following terms: The soft palate having been prepared for staphyloraphy by the usual abrasion of its edges, and the introduction of the necessary points of suture, the mucous membrane covering the roof of the mouth was carefully raised on each side of the fissure in the hard palate, and when thus detached, they were brought across the fissure and united, like the soft palate, by the interrupted sutures, the flaps formed by the mucous membrane of the mouth being continuous with the denuded edges of the soft palate. This difficult and delicate operation was completely successful, and is by no means diminished in value from having been first devised and successfully performed, many years before, by a German surgeon, named Krimer or Kreimer. Now let us glance at the process of Krimer: This surgeon made incisions at some distance outside a cleft which remained in the hard palate after a staphyloraphy. He was enabled to dissect from the sides towards the cleft two flaps, which he reversed upon themselves, and then united by stitches. The patient made a perfect recovery.

It is plain that Kreimer and Warren performed uranoplasty by different processes, but the right of priority belongs to Kreimer. Gross seems to imply, in the last edition of his System of Surgery, that Warren performed the operation by dissecting the flaps

from the alveolar border towards the cleft on each side, whereas he dissected in the opposite direction. In order to get the truth of the matter we naturally consult Warren himself. "The operation," he says, "upon the hard palate, consisted in dissecting up with a long, double-edged knife, curved on its flat side, the membranes covering the hard palate, pursuing the dissection quite back to the root of the alveolar processes." Dr. Warren distinctly states in the same work, "Surgical Observations," that the flaps were made to cover the cleft par glissement. Such are the peculiarities of this infirmity, that it is not by any single operative process that the most gratifying results are obtained. Each case must be studied *per se*, its complications well considered, and the operation modified accordingly. Dr. Wm. R. Whitehead, of N. Y., in 1869, read before the American Medical Association, "A Report on the Best Methods of Treatment for Different Forms of Cleft Palate." This paper contains a description of a very efficient instrument known as Whitehead's gag, the principle of action being the same as that of Smith's. The former is less expensive. Dr. Whitehead etherizes his patients. The use of the gag, the simplification of other instruments, and the use of anæsthetics, have greatly facilitated the performance of staphyloraphy and uranoplasty, made them practicable in the case of children, and have given the operative treatment of cleft palate a high rank in surgery. In all such cases, the infant is unable to suck the nipple, and hence, during the first months, it is a struggle for life. Such infants should be hand-fed, in the upright position. Uranoplasty should not be inflicted upon very young infants, for several reasons, viz.: Infants bear hemorrhage badly, convulsions are likely to supervene; the traumatic inflammation interferes with the feeding of the child. Children do not begin to pronounce many words before the age of two years. The fissure in the soft palate should be first closed, and the next step should be the closure of the hare-lip, should that defect exist, or the reverse. Should these operations be successful, we have every reason to look for a diminution in the cleft of the hard palate in the course of several months. Now, gentlemen, it is the opinion of many of our most eminent surgeons, that uranoplasty in adults, and staphyloraphy too, for that matter, are productive of no very decided improvement in articulation, but if the cleft be closed about the time that articulation commences, or

soon after, our patients would doubtless receive a benefit which can scarcely be exaggerated. This was once an operation nearly hopeless in many cases. To-day it can be looked upon as certain to effect the closure of the most extensive cleft, and I hope I shall not be considered too enthusiastic in saying that it is likewise almost sure to improve a most unfortunate articulation. In August, 1867, a little girl aged eight years came under my care, and was admitted to St. Luke's Hospital. She had a cleft extending through the velum, the hard palate, the alveolar process between the incisor teeth, and through the lip. Soon after admission the usual operation for hare-lip was performed, with good result. One of the incisor teeth, in consequence of the deformity, presented one of its sides towards the lip, and so constantly impinged against the line of incision, that ulcerations supervened. Dr. Allport disposed of this inconvenience by turning the tooth in its socket, in order to place the former in normal relation to the lip.

In February, 1871, when the child was nearly twelve years old, and four years after the operation on the lip, I was induced to attempt the closure in the cleft in the hard palate by the following method: An incision, commencing at the posterior margin of the hard palate, was carried forward, close to the alveolar processes, and terminated close to the anterior extremity of the cleft behind the incisor teeth. A second incision was made transversely, connecting the posterior extremity of the cleft with the point of commencement of the incision already described. The flap thus mapped out was dissected up, as close to the bone as possible, from the alveolar processes towards the cleft. A similar flap having been made in the opposite side of the cleft, the two hung vertically, as two curtains, one from each margin of the cleft. A thread of surgeon's silk was then armed at each end with Sim's needle. The flaps hanging as just described, one needle was passed through the posterior end of the flap from without inward, drawn forward as far as was deemed necessary, and made to transfix the flap near its anterior end from within outwards. The other end of the thread was carried in a similar manner through the opposite flap. The flaps were then rolled or crowded up into the fissure, with their raw surfaces in apposition, and the sutures tightened and knotted. By this method the fissure in the hard palate was closed, with the exception of an

unimportant orifice just behind the incisor teeth. This was done in the presence of Prof. Gunn and Dr. Allport, and I should not omit to mention that it was the second attempt to close this fissure. The first one I was obliged to abandon at a very early stage, for want of the co-operation of the patient. The second operation was pursued as far as possible without an anæsthetic, and when the patient ceased to co-operate, æther was administered, under the influence of which the operation was completed. The jaws were kept asunder by means of corks. Hemorrhage from the posterior palatine artery continuing after the operation had been completed, was arrested by digital compression. A solution of chlorate of potash was employed, as a mouth wash during the healing process. The advantages claimed for this method of closing wide fissures in the hard palate are the following:

1. There is no tension of the flaps.
2. Two large raw surfaces are placed in contact instead of two raw edges, thereby increasing the chances of success.
3. The dissection from without inward is less difficult than a dissection in an opposite direction.
4. The difficulty of introducing and knotting the suture is reduced to a minimum.
5. Fissures of greater width can be closed by this than by any other method hitherto attempted.

Finally, from a consideration of this subject we have deduced the following conclusions:

1. That the operation for cleft of the hard and soft palate, unless for the purpose of facilitating the nourishment of the child, should not be attempted before the age of two years.
2. That we should not attempt the closure of the cleft in the hard and soft palate at one operation.
3. That the use of an anæsthetic, or the full co-operation of the patient, is necessary to the success of the operation.
4. That the operations in question upon young children, with the aid of an anæsthetic and gag, can be successfully performed, and that we have reason to look for a marked improvement in articulation.
5. That staphyloraphy was performed as early as 1764 by

Lemonnier, and perhaps, also, uranoplasty—48 years before Graefe and 55 years before Roux of Paris performed the former.

6. That both Lemonnier and Krimer performed uranoplasty before it was undertaken by Dr. Jno. Mason Warren.

7. That Dr. Jno. Mason Warren, in 1843, devised the operation for the relaxation of the flaps in staphyloraphy, and that priority belongs to him and not to Fergusson.

ARTICLE II.—*Annual Report of the Section on Obstetrics and Diseases of Women and Children of the Chicago Society of Physicians and Surgeons. Department of Gynæcology.* Read before the Society December 8, 1873, by A. REEVES JACKSON, M.D., Chairman of the Section.

In preparing the report upon gynæcology, which I have the honor to submit to the Society, I have been governed by one principal object. This was, to bring together the most recent expression of the opinions held by prominent gynæcologists, in different parts of the world, upon various important subjects connected with this department of practical medicine. I hoped, in this way, to present the subject in such a light as would enable the Society to appreciate the progress and present status of gynæcological doctrine and practice.

The field from which my material has been culled, consists of such of the various medical periodicals published during the current year as I have been able to consult. The report, therefore, is simply a compilation. In no case have I ventured to intrude my own opinions upon the subjects discussed; preferring to state facts and views as given by others, and permitting the members of the Society to form their own conclusions.

I may premise, however, that in gynæcology there is no more uniformity of belief, as regards questions of pathology or treatment, than is found in other branches of medical practice.

In many instances the diversity of opinion amounts to complete opposition; and, while not attaining this extent in others, it is yet so great as to make them irreconcilable. One set of practitioners, for example, advocate the use of mechanical appliances as the

chief and sufficient means for the treatment of uterine displacements; others decry their use as unnecessary and hurtful, and condemn them *in toto.* One set, again, believing that all, or nearly all, cases of painful menstruation depend upon mechanical obstruction to the flow, tell us that the uterine cavity must be dilated; and they differ as to whether we will accomplish this end best by bougie, sponge or sea-tangle. Others, who agree with these last as to the pathological condition present, differ from them in advising that the uterine canal be not stretched at all, but cut; and then they, too, differ among themselves as to where the cutting shall be done—whether at the internal or external os uteri —and whether it shall be done with one blade or two, bilaterally or antero-posteriorly.

And so, were it profitable and not wearisome, I might go on and show that upon almost every point there is sufficient variance of opinion to prove that gynæcology is a human science; and being human, imperfect; and being imperfect, susceptible of improvement.

TREATMENT OF UTERINE CANCER BY ERGOT AND ESCHAROTICS.

Dr. Alexander Milne, in a paper read before the Obstetrical Society of Edinburgh, and an abstract of which was published in the *Obstetrical Journal of Great Britain and Ireland*, for May, 1873, advocates the use of caustics, on the ground that, in addition to their corrosive properties, they possess also an alterative and eclectic influence; that they not only sever the morbid part, but promote a healthy cicatrix behind; and furthermore, that they penetrate and search out and destroy those deeper morbid cells which are removed some distance from the parent tumor, and which insure its recurrence.

He prefers to begin with the dried sulphate of zinc, applied to the cervix pretty freely through the speculum, the vagina being immediately thereafter plugged with cotton wool, tipped at the uterine end with a little olive oil. This is to be applied until a slough comes away, after which the cervix is to be injected with the nitrate of copper. This last is done in order to attack any morbid cells lying beyond the sore from which the slough has separated. He regards the nitrate of copper as being the best adapted to elect, attack and destroy these lurking microscopic

cells, which, if allowed to remain, are a sure guarantee of a fresh growth.

In reference to the influence of ergot, given internally, in cancer, Dr. Milne believes that the drug, in addition to its power as a hemostatic, for which it has usually been administered, has also another effect—it leads to the atrophy of the uterus, an observation which he claims to have been the first to make. It acts beneficially by diminishing the afflux of blood to the uterus, thereby combatting uterine congestion—a condition present in malignant disease—and also by its no less important property of inducing uterine atrophy. By the combined use of the escharotics and ergot he has succeeded in curing two cases of cauliflower excrescence, and in three cases of the medullary form of the disease he had at least retarded its progress. In one of these last he thought a permanent cure would be effected, while as regarded the others, there had been diminution of pain, of bleeding, and of offensive discharge.

UTERINE CANCER—ITS TREATMENT BY GASTRIC JUICE.

Dr. C. H. F. Routh read a paper upon this subject before the Obstetrical Section of the British Medical Association, advocating the use of gastric juice as a dressing to cancerous ulcers of the uterus—not for the purpose of superseding other means of treatment, but only as a powerful adjuvant. Dr. Routh's plan is to assist the healing process, after the whole, or part only, of the diseased mass has been removed. He directs that the cancerous growth about to be treated should have its surface destroyed, if it be not already in a state of ulceration; but even in these latter cases he thinks it well to remove a considerable portion. It matters not by what agent this is done—the knife, the ecraseur, strong caustics, or the actual cautery. He has used all, according to the case. After a raw surface is formed, or even if it be still covered by a slough, which is the result of the caustics or cautery, he applies the gastric juice in excess, on a piece of lint. He does this through a speculum. This is covered with a piece of oiled silk or gutta-percha sheeting, and the whole kept in place by a plug of cotton. This should be done twice a day, or oftener if it be practicable.

Dr. Routh says: "Let it be clearly understood that I am far

from saying that gastric juice will cure all cases of cancer. But I am sure it will cure some where other agents have failed."

He then relates four cases in which this plan of treatment had been successfully used, two of them being under his own care, and the other two under the care of other practitioners. The length of time during which these patients were under treatment was, respectively, thirteen, twenty-one, thirty-two and thirty-five days.

FORCIBLE AND RAPID DILATATION OF THE CERVIX UTERI FOR THE CURE OF DYSMENORRHŒA.

Dr. Ball, in the *New York Medical Journal*, for October, 1873, details nine cases of dysmenorrhœa in which great success attended forcible dilatation of the cervix uteri.

The following is Dr. Ball's method in detail:

"The bowels are thoroughly evacuated, the patient put under the influence of an anæsthetic, the cervix seized with a tenaculum and drawn down, and a metal bougie, as large as the canal will admit, introduced, followed in rapid succession by others of a larger size, until No. 7 is reached, which represents the size of the dilator used by Dr. Ball, which is then introduced, and the cervix stretched, in every direction, until large enough to admit a No. 16 bougie, which is all that is generally necessary. A hollow gum-elastic uterine pessary, of about that size, is then introduced and retained in position by a stem secured outside the vulva, which is allowed to remain about a week. During this time the patient is kept in bed, usually on her back.

"The effects of this operation are three-fold: first, by breaking up all adhesions, which are often very firm and unyielding, it relieves the constriction entirely, while, acting as a derivative, it cures the hyperemia of the cervix; and further, it establishes a radical change in the nutrition of the whole organ. . . . . .

"In cases of flexion, the relief is obtained by the straightening of the canal, which is produced by a change of the muscular tissue of the cervix from an abnormal to a normal condition. In the rapid dilatation of the parts, the constricting fibres are, of course, lacerated to some extent, and in healing up around the pessary must, necessarily, conform to their new relation."

Dr. Ball regards this method of treatment as having one great

advantage, viz., the saving of time, and alleges that he has accomplished more by it in a less number of weeks than it would take months to do by the ordinary method. He thinks it produces less constitutional disturbance than tents, and is safer than the metrotome, and free from some of the objections to the latter; as, for instance, when incisions are made through the tissues of the cervix, unless carried deep enough to prevent reunion, they must, of necessity, form a cicatrix, which will interfere more or less with the dilatation of the parts; while, if the operation does not succeed, the patient is left in a worse condition than before.

HYSTEROTOMY *versus* DILATATION.

On the other hand, Dr. Percy Boulton, in a paper read before the Harvein Society, March 6th, of which an abstract is given in the *Obstetrical Journal of Great Britain and Ireland*, on the subject of Hysterotomy *versus* Dilatation, announces his preference for the former over any form of dilatation.

The condition calling for the operation is the so-called mechanical dysmenorrhœa. These cases are due to a preternatural narrowing of one of the orifices of the uterus or the cervical canal, with or without flexion, and generally associated with ovarian pain and other symptoms. This stricture might be congenital, or the result of strong caustics, applied for the cure of ulceration or other purpose. Every one is agreed that the only thing to be done is to enlarge the passage through which the menstrual discharge has to flow, and one author thinks that if this is not done there is great danger that the constantly recurring congestion and irritation will eventually produce ovarian disease.

For the cutting part of the operation, he advocates the use of the metrotome *cache*. 1. Because the part introduced into the uterus is smaller than any other instrument used for the purpose, and is passed more easily. 2. It requires only once introducing, on account of cutting bilaterally, and therefore causes less irritation. 3. There is little or no danger of wounding the circular arteries of the os internum, or the vagina, in withdrawing the instrument. 4. It can be used without a speculum.

After the cutting is over, Dr. Boulton prefers a stem—not a plug—to any other dressing.

The author then gives the results of one hundred cases of

hysterotomy, operated upon by Dr. Thomas Hawkes Tanner, or himself, five hundred by Drs. Sims and Emmet, and three hundred by Dr. Greenhalgh—nine hundred in all, and shows that in this number hemorrhage, requiring plugging, occurred in two, pelvic cellulitis in six, and in one, fatal peritonitis was set up; but the patient having had tubercular peritonitis before operation, this was an unsuitable case. This was the only case of death.

Dr. Boulton then asks: "Would such evidence be considered favorable or not in any other operation? Is there any other operation which gives equal relief to the patient which is equally free from danger?"

He calls attention to the fact that dilatation of the os uteri takes place at every confinement, and whenever any intra-uterine tumor is removed; but as certainly as the uterus is left in repose so certainly does it close again. How could any one expect, then, he asks, any permanent cure from dilatation? He prefers hysterotomy because, after it the cure is generally perfect and permanent, provided the stem is worn at least four weeks, while a cure is rarely permanent after dilatation; and because cutting gives relief rather than being a source of irritation, while the reverse is true of dilatation.

In conclusion, he details six cases in which he had cured both dysmenorrhœa and sterility by hysterotomy, in two of which dilatation had been tried without success.

TREATMENT OF DYSMENORRHŒA.

Dr. Charles R. Drysdale, in the *Medical Press and Circular*, for October, has a paper upon this subject, in which he differs from both the preceding authors. After detailing the treatment useful for the neuralgic and congestive forms of the disease, he expresses the opinion that the cases of painful menstruation depending upon mechanical stoppage to the flow are comparatively rare; and that the assertion of Dr. Marion Sims that the treatment of the majority of uterine diseases should be surgical, seems to the author absurd in the highest degree. He further states that, according to the experience and statements of Drs. Kidd, of Dublin, and Gream, of London, the operation of incising the cervix, which is advised even more by Dr. Sims than by Dr. Simpson or Spencer Wells, may produce fatal hemorrhage, pelvic

abscess, a consecutive relaxation which is prejudicial to gestation, or a cicatrix. He also refers to the diverse practice of Drs. Barnes, Greenhalgh and Routh; the former, in cases of conical cervix, dividing the external os uteri, while the two latter say that in the great majority of cases the stricture is at the internal os uteri.

Dr. Drysdale advises, in cases of mechanical dysmenorrhœa, the introduction of various sizes of sounds, or the use of tents of laminaria digitata, until the uterus is large enough to admit a sound of the size of a No. 9 catheter. He considers the hysterotome as only required in cases of cicatrix after laborious confinements.

SUBINVOLUTION OF THE WOMB.

In the *Charlestown Medical Journal*, for May and September, there appeared articles upon the above subject by Dr. Baruch, in which the author calls attention to the improper diet of lying-in women, which he regards as a frequent etiological element in the production of the abnormal condition. He says: "They are fed during the first week on tea, toast and gruel; all stimulating and sustaining articles of diet are sedulously avoided, lest their 'heating properties' produce inflammation. The patient's stamina is impaired, the circulation suffers, and the due execution of the local processes of degeneration and absorption are interrupted."

Dr. Baruch recommends as measures of treatment the introduction of Simpson's large sound for a few minutes, twice a week, with the administration of full doses of fluid extract of ergot. Should these measures fail, the weekly introduction of sponge-tents should be tried. When the cervix has become indurated, hot water douches should be used, the Fountain Syringe being the best instrument for the purpose. Should erosions be found on the cervix, they should be touched once a week, after being thoroughly cleansed of the mucus or pus which envelops them, with chromic acid, one part to three of water, or the pure tinct. iodine. The application should be followed by the introduction of a plug of cotton, saturated with glycerine, which should be retained twelve hours. If the erosions extend into the uterus, weak solutions of iodine, chromic acid, sulphate of zinc or carbolic acid may be introduced by bits of sponge, held in Sims'

sponge-holder. Counter-irritation to the lumbar region, with hip-baths, are also useful.

NITRIC ACID IN THE TREATMENT OF UTERINE DISEASE.

Dr. Lombe Atthill, in a paper contributed to the *Obstetrical Journal of Great Britain and Ireland*, for June, 1873, relates several cases in which he had used the fuming nitric acid in the treatment of various chronic forms of uterine disease.

The cases treated were menorrhagia, connected with a rough granular condition of the uterine lining membrane, subinvolution, endometritis, and for checking the hemorrhage dependent upon imbedded fibrous tumors. As the result of Dr. Athill's experience, he draws the following conclusions:

1. Where tenderness on pressure exists, it should be removed, or at least materially lessened, by local depletion, before the acid is used.

2. That when this precaution has been taken, fuming nitric acid may be applied with safety to the interior of the uterus.

3. That when the cervix has been previously dilated, its application does not cause any pain.

4. That in some instances it appears to have a directly soothing influence on the uterine nerves.

5. That when applied through a canula, pain is sometimes produced, but less severe in character than that caused by the use of the solid nitrate of silver.

6. That its use is in some cases followed by hemorrhage of moderate amount, which, however, does not influence the result of the case.

7. That if applied to the *healthy* cervix, it may produce contraction, and possibly obliteration of the cervical canal, and that consequently, means should be adopted to guard the cervical canal, when *healthy*, from its action.

8. That in cases where imbedded fibrous tumors exist, the fuming nitric acid exercises a marked effect in controlling hemorrhage and in allaying pain.

Dr. Atthill's mode of applying the acid is as follows: Having previously dilated the cervical canal by means of sea-tangle tents, he seizes the anterior lip of the cervix by means of a vulsellum, and thus draws down and steadies the uterus; he then introduces

a bivalve intra-uterine speculum, made of vulcanite, to the depth of about an inch, and expands the blades slowly to an extent sufficient to permit a pair of fine forceps, holding a roll of cotton, to be introduced. With the latter he dries the inner surface of the uterus, and withdrawing the cotton, passes through the speculum a probe armed with a roll of cotton saturated with the fuming nitric acid. This being then withdrawn, the blades of the speculum are closed. A pledget of cotton soaked in glycerine is placed in the vagina, a strong thread being attached to facilitate removal, the lip freed from the grasp of the vulsellum, and the patient put to bed and kept quiet for some days.

ON INTRA-UTERINE MEDICATION.

Dr. Robert Barnes, in the *British Medical Journal* for January 11, has a paper upon the different forms of intra-uterine treatment. Speaking of intra-uterine injections, he says, several precepts have been enjoined to avoid their dangers. The great object aimed at is to avoid or lessen the risk of the fluid running along the Fallopian tubes. This is sought to be attained—1. By securing free dilatation of the cervix uteri before injecting, so that the fluid may readily run back into the vagina. For this purpose the preliminary use of laminaria tents is advised. 2. By using only graduated quantities of fluids, and injecting very gently and slowly. 3. By using a double canula, so as to secure a return current. To effect this the more surely, the openings of the canula at the uterine end are made at different levels.

Dr. Barnes has not much faith in the double canula. The end which should serve for the return current is liable to be choked. The preliminary free dilatation of the cervix, and the use of gentleness in propelling the fluid, should never be omitted; but the author does not believe that the observance of these precautions is an absolute guaranty against accidents. He thinks it better to use injecting-pipes having lateral openings of very fine calibre, so as to "pulverize" the liquid.

Dr. Barnes strongly advises not to use injections at all in cases of marked flexion of the uterus. Even if we dilate the cervix first by tents, and maintain the uterus erect during the injection, we cannot always be sure that the flexion will not be reproduced, so as to prevent the issue of the fluid; and it must not be forgotten

that it is especially in these cases that the uterine cavity is likely to be enlarged, and the Fallopian tubes dilated. For all these reasons, Dr. Barnes would restrict the use of intra-uterine injections within the narrowest limits. He rarely employs them now, except in cases of urgent danger from menorrhagia.

Besides, we may obtain almost all the advantages that injections are capable of giving by other means. For example, the agents which are useful in the form of solutions for injections, may be employed by swabbing, or solid, or in the form of ointment. Thus, where the use of chromic or nitric acid, or perchloride of iron, or iodine, or bromine, is indicated, these agents can be applied soaked on a sponge or piece of cotton, or a glass or hair pencil, the cervix having been previously well dilated. Nitrate of silver is best applied in the solid form. To lessen its liability to cause severe uterine colic, it should be fused with an equal quantity of nitrate of potash. Dr. Barnes objects to the ordinary way of using the solid nitrate of silver—that is, by holding a piece of the stick in a forceps or *porte-caustique*. The piece may fall out or break, and a fragment left behind in the cervix or body of the uterus may give rise to intense agony, and even metritis. To avoid this, Dr. Barnes adopts a contrivance which he learned from Sir Benjamin Brodie, who armed the ordinary probe by dipping the end into nitrate of silver fused in a watch-glass over a spirit-lamp. The author uses probes of platinum or silver, mounted on handles of convenient length. These probes may be curved to follow the course of the uterine canal. This, Dr. Barnes alleges, is by far the best way of applying nitrate of silver to the os and cervix uteri, and the only safe way of applying it to the interior of the uterine cavity.

One of the most widely useful topical applications to the mucous membrane of the cervix and body of the uterus is sulphate of zinc. It should be fused into small cylindrical sticks weighing three and five grains. These can be carried quite into the uterus without having touched the vagina by the way, by the use of a canula. This should be of the size of a No. 8 or 9 catheter, gently curved, open at the end, and supplied with a stilet or piston. The stick of sulphate of zinc is placed in the uterine end of the canula; the instrument is then passed into the uterus, the patient lying on her left side; and the operator's finger, placed on the os uteri, guides

the instrument. This may be done without the use of the speculum. When the instrument has gone the proper depth, the piston pushes out the stick, and the instrument is withdrawn, leaving the stick to dissolve. This it soon begins to do, and by its speedy effect in constringing the mucous membrane, it keeps itself *in situ* until it is completely dissolved.

A most precious way of applying astringents, caustics, solvents or alteratives to the interior of the uterus, is in the form of ointment or pasma. In this form we may use substances which cannot easily be applied in any other way. For example, we can hardly use bromine, or iodine, or mercury, in a solid shape, and to use them in liquid form is open to the objections already discussed. Almost anything can be made into an ointment or pasma, and thus we get a complete practical command over a large range of useful substances.

To introduce an ointment into the cavity of the uterus, Dr. Barnes uses an instrument similar to the one just described for using the sticks of sulphate of zinc, and capable, like that, of being used like a sound without the speculum. The instrument is charged by dipping it into the ointment, a sufficient quantity of which is carried into the uterus, and, by pushing up the piston, is deposited there.

If it be desired to apply a powerful liquid caustic, as chromic acid, or strong bromine, to the interior of the uterus, this can be done by the caustic-carrier. A few shreds of asbestos may be packed in the space between the eyelet-holes and charged with the fluid. On ramming down the piston, the fluid will be squeezed out.

PROLAPSUS UTERI.

Dr. G. P. Hochenberg reports in the *New York Medical Record* several cases of prolapsus uteri in which he found the use of tannin successful when other means had failed to give relief. His method is as follows: A glass speculum is introduced into the vagina, so as to push the uterus into its place. Through the speculum a metallic tube or syringe, with the end containing about thirty grains of tannin, is passed. With a piston the tannin is now pushed against the uterus, the syringe withdrawn, and the packing neatly and effectually completed with a dry probang,

around the mouth and neck of the womb. After the packing is completed, the probang is placed against the tannin, in order to hold it, and the speculum is partially withdrawn. The packing is now fully secured, and the instrument removed.

The application of tannin holds the uterus firmly and securely in place, not by dilatation of the walls of the vagina, but by corrugating and contracting its parts. At first the application may be made weekly, finally but once or twice a month.

Dr. Evory Kennedy, in the *British Medical Journal*, of August 17, reports a case of obstinate procidentia in a widow, aged sixty, who had borne six children, and who could not retain any form of pessary, in which he effected a cure by the use of the actual cautery. The iron was applied about an inch and a half from the vulva, round the surface of the vagina, to the extent of about half an inch. The subsequent treatment consisted of the application of the nitrate of silver. At the expiration of two months she was able to go about again. The uterus remained *in situ*, the cicatrix formed by the eschar preventing the descent of the organ.

Finally, Dr. Chas. R. Drysdale, in the *Medical Press and Circular* of October 23, in a paper upon this subject, advises that in cases of prolapsus, attended with inflammation and enlargement of the uterus, these conditions should be removed before having recourse to any other surgical procedure. But in all cases where there is rupture of the perineum (the uterus being of normal bulk), in all cases of procidentia, when great suffering results from prolapse, when the case is chronic, or when the bladder or rectum is much prolapsed, supports are clearly indicated. Nothing is of more importance than the choice of a pessary in the treatment of any form of prolapse of the uterus. The air-ball pessary of Gariel, or the air-ring, is often useful. The author dislikes Zwauke's pessary; Hodges' horse-shoe pessary is useful, but he prefers the simple ring pessary introduced by Dr. Grailly Hewitt, and thinks they are by far the best ever brought into practice. Hewitt's ring pessary is merely a copper wire ring, coated externally with gutta-percha, of various diameters, which can be moulded into any shape the practitioner pleases, thus being suitable for all cases of introversion, retroversion and prolapse. Sponge pessaries should never be used, as they become rapidly most horribly fetid. Stem pessaries are expensive and difficult to manage, and the author cannot

recommend any of them. Ashburvei's pad is an admirable support in cases of rupture of the perineum and procidentia. The most important purpose served by all pessaries which prove of any service, is to keep the uterus motionless. Two important points should be observed in the use of pessaries: one is, not to permit them to remain more than a week at a time in the vagina, and the other, that the very smallest size of pessary that will keep the uterus up should alone be used.

THE INTRA-UTERINE STEM IN THE TREATMENT OF FLEXIONS OF THE UTERUS.

There appears to be an increasing tendency among gynæcologists to resort to the use of the intra-uterine stem for the cure of flexions of the uterus.

Dr. Thomas Chambers, Physician to the Chelsea Hospital for Women, reports in the *Obstetrical Journal of Great Britain and Ireland*, several cases successfully treated by this means. Dr. Thomas Savage, Surgeon to the Birmingham Hospital for Women, in the November number of the same journal, states that he has used the intra-uterine stem for retroflections and anteflexions, in forty-four women who had not been impregnated, and in not one had any ill effects followed. The discharge produced by the presence of the instrument was slight, as a rule, but even when profuse had not been found troublesome, and could be kept in check by the frequent use of the ordinary astringent injections. It had always seemed to disappear on the use of the instrument being discontinued. Dr. Savage had tried the galvanic stem as usually sold, also the modification of it with a bulbous extremity, the plain vulcanite stem, Dr. Greenhalgh's stem, one devised by Mr. Ross Jordan, with a perforation near the extremity through which was passed a thread of India-rubber, after the manner of the winged catheters; but the tendency of all was to slip out. Dr. Chambers' stems seemed most likely to remain in without assistance, but in two instances they too had escaped. The padlock of Grailly Hewitt was in some cases an admirable contrivance, and most frequently remained *in situ*. The best means to adopt was to insert a stem, and keep it in place by a shelf pessary cut small, or a small ring elongated, and moulded to the size and shape of the vagina. The supports of Dr. Wynn Williams seemed to be very

useful; they consist of an oval ring, the centre being occupied by a perforated diaphragm of gutta-percha.

FIBROUS TUMORS OF THE UTERUS.

In the *Half-Yearly Abstract of the Medical Sciences*, for January, 1873, there was published a *resume* of a paper originally published in the *Gazette Hebdomadaire*, November 27, 1872, by Dr. Hildebrandt, in which he reports eight cases of fibrous tumor of the womb, treated by the subcutaneous injection of ergotin.

Langenbeck had already practiced injections of ergotin as a means of treating aneurism, and MM. Ruben and Zeute have directed attention to the good effects of the same treatment when applied in cases of menorrhagia and metrorrhagia after delivery. Dr. Hildebrandt has extended the use of this method, and expresses the hope that he has found in it a new means of treating fibrous tumors of the uterus. The solution used by Dr. Hildebrandt was made up of three parts of ergotin, 7.5 parts of glycerine, and 7.5 parts of water, used with a Pravaz's syringe. This solution produces much less pain than that used by Langenbeck, which contained alcohol. Dr. Hildebrandt states that these injections cause very little pain, and do not produce abscesses. The patient, after each injection with this solution, may return to her home. The site selected for the insertion of the syringe, was that part of the integument of the abdomen immediately over the tumor. The author remarks that the lower parts of the abdomen are more sensitive to puncture and injection than the parts around the umbilicus.

Judging from this report, ergotin administered by injection seems to be a powerful medicinal agent. In one of the cases a tumor which had extended beyond the umbilicus had disappeared; in a second, a tumor which reached as far as the false ribs, descended to below the umbilicus; and in four cases, where the treatment had been less complete, there was improvement in both the general and local conditions. The ergotin rendered menstruation less irregular, less abundant, less prolonged, and, above all, less painful. It is not easy to state precisely the mode of action of the ergotin in these cases. It is probable that in consequence of the contractions produced by ergotin in the nutrient vessels of the tumor, and in consequence, also, of the compression in all directions by the contracting uterine walls, the nutrition of the

tumor is interfered with, and that then fatty degeneration and absorption take place. It is probable, also, that intra-uterine tumors are more readily modified in this way than subperitoneal tumors, and ungomata more readily than fibromata.

Dr. George H. Kidd also had a communication upon the subject of fibrous tumors, which was read before the Dublin Obstetrical Society, and which was reported in the *Medical Press and Circular* of August 28.

Dr. Kidd recommends, in the case of such tumors as are removable by this means, the use of steel wire, in fact, a piece of piano-string, with the *ecraseur* instead of the soft iron wire commonly employed. The author says that the soft wire when passed up assumes the shape of the canal of the cervix, and it is difficult to expand it again so as to get it around a large tumor. By using a steel wire you can compress it to get it through the narrow os, and when you get it up it expands by its own elasticity, and you can slip it over the tumor with ease.

Dr. Kidd has used this means satisfactorily in several cases, and the procedure has been adopted by Dr. Atthill and other prominent British gynæcologists, all of whom speak in high terms of its great advantages over the method formerly used.

Finally, Dr. Abeille reports, in the *Gazette Medicale de Paris*, a case of successful removal of a large interstitial fibroma of the uterus, and, in his subsequent remarks upon the subject of pedunculated tumors and polypi, states that when the pedicle is attached at the level of, or a little above, the internal os uteri, whatever may be the size of the tumor, a period will certainly arrive at which the uterus, contracting energetically at a menstrual period, causes the growth to protrude from the orifice after more or less considerable hemorrhage. When the tumor has passed into the vagina, provided it is still fixed to the uterus, the flow of blood becomes continuous. This sign indicates the necessity for an early operation. These are simple cases, and the operation, which consists in cutting through the pedicle, is very easy. Even when the pedicle is attached at a higher part of the uterine cavity (even at its middle, the uterus being divided into two portions by a transverse line), the tumor may still be expelled during uterine contractions. However, for this result to take place spontaneously, more time and more energetic contractions of the uterus are required. The

nearer the attachment of the tumor is to the fundus, the more difficult does it become for the uterus to expel it from its cavity, notwithstanding energetic and repeated contractions. When the pedicle is inserted directly at the fundus of the womb, whatever be the size and thickness of the pedicle, spontaneous expulsion of the tumor is absolutely impossible.

Serious mistakes in diagnosis have been made by very experienced practitioners in consequence of their exploring the uterus between the menstrual periods. It is of the highest importance to remember that in all cases where the symptoms lead one to suspect the presence of an intra-uterine polypus, the exploration ought to be made during the menstrual flow, because it is during this period that the uterus, endeavoring to expel the tumor, pushes it towards the cervix, and causes great dilatation at this region.

THE CONSTITUTIONAL TREATMENT OF CHRONIC INFLAMMATION OF THE CERVIX UTERI.

Dr. Thomas More Madden read a paper upon this subject before the Dublin Obstetrical Society, February 8, of which an abstract was reported in the *Medical Press and Circular.*

In this essay, Dr. Madden expresses the opinion that physicians do not sufficiently realize the constitutional causation of the disease, and that this accounts for the vague and unsatisfactory character of the treatment, which is generally protracted, and frequently unrewarded by cure. Among the consequences of chronic inflammation of the cervix, Dr. Madden includes endometritis, ulceration and hypertrophy of the cervix, menorrhagia, vaginitis, leucorrhœa, hysteria, and, above all, sterility. The author thinks that undue importance is attached to the local exciting causes of these affections, while the constitutional predisposing causes are disregarded. He considers the scrofulous diathesis as one of the most common predisposing causes at work, and thinks that if the connection between struma and the more common forms of uterine disease were recognized, it would lead to a more satisfactory and rational mode of treating these complaints.

Dr. Madden, while fully appreciating the importance of local treatment, yet thinks that almost exclusive attention is paid to it, while the constitutional derangement is practically neglected.

As constitutional measures, the author recommends the simple

preparations of iodine, given in small doses, as originally ordered by Lugol, such, for example, as the one-eighth of a grain of iodine with one-fourth of a grain of iodide of potassium, in preference to the larger doses of its compounds now generally prescribed. In cases where symptoms of anemia predominate, the various combinations of steel with iodine are of singular benefit, all symptoms of uterine disease often disappearing under their use without any local treatment whatever. He has found no remedy so generally useful in these cases as a mixture of equal parts of cod-liver oil and syrup of iodide of iron. Other constitutional conditions than the scrofulous diathesis may be the predisposing causes of uterine disease, and here a modified antiphlogistic course of treatment is indicated. Frequently small doses of the bichloride of mercury, $\frac{1}{24}$ of a grain three times a day, in the tincture or infusion of bark, will be found useful. Notwithstanding the prevailing scepticism as to the efficacy of medicines in these chronic uterine affections, Dr. Madden's experience of many cases has fully convinced him that, although the local symptoms may subside for a time under purely local treatment, the patient is more quickly as well as more permanently cured by the administration of constitutional remedies, such as those just referred to, whilst due attention is, at the same time, paid to the local treatment of the ulcerated or inflamed part. The prevailing type of chronic uterine complaints, like that of all other general diseases of the present time, is essentially asthenic, and requires the administration of tonics in almost every instance, and more especially the preparations of steel, iodine and quinine combined, when circumstances admit of it, with change of air and mineral waters. Dr. Madden speaks with great confidence of the curative effects of climate and of mineral and thermal waters in cases of chronic uterine disease, having given his attention to the subject during several years of travel and clinical observation in the health resorts of the Continent and the Mediterranean shores of Europe and Africa, as well as at the spas of Germany, France and Italy.

ON THE USE OF DRAINAGE TUBES FOR THE PREVENTION OF SEPTICÆMIA AFTER OVARIOTOMY.

Dr. J. Marion Sims has contributed to the *New York Medical Journal*, for December, 1872, an interesting paper upon ovari-

otomy, which has since been published in pamphlet form, in which he expresses the belief that as regards the question of the treatment of the pedicle, the clamp has seen its best days, and that when it comes to be positively determined, he has scarcely a doubt that the decision will be against the principle of drawing the pedicle externally; and, although himself and Dr. Emmet have for the past ten years advocated and practiced the plan of tying the pedicle with silver wire and dropping it back into the abdomen, he yet thinks "the time may possibly come when clamps and ligatures, whether of twine, catgut or wire, may give way to torsion of the arteries, or to their obliteration by enucleation of the pedicle from the coats of the cyst."

But the most important portion of Dr. Sims' paper relates to another matter. From a study of his own *post-mortems* and those of Mr. Spencer Wells, he arrives at the conclusion that "septicemia is the great outlet of life in ovariotomy."

In Mr. Spencer Wells' twenty-eight fatal cases in which *post-mortem* examinations were made, two died of tetanus, and of the remaining twenty-six, "two had pyemic poisoning, and twenty-four presented the infallible *post-obit* evidences of septicemia. In every one of Dr. Sims' seven *post-mortem* examinations, and in every one of Mr. Wells' twenty-six, were found uniformly the same pathological appearances. In all of them was found a quantity of reddish or grayish turbia, or fetid, or putrid, or acrimonious serum in the peritoneal cavity; and in cases slowly dying of pyemia, were invariably found pyogenic reservoirs in the pelvic cavity. In view of these facts, Dr. Sims asks, "Is it not logical to infer that these pent-up fluids are the causes of the blood-poisoning that so uniformly, I should say universally, attends fatal cases of ovariotomy?

"I do not pretend to deny that death may occur from shock, or from hemorrhage, or from heart-clot, or from exhaustion; but I feel sure that these, independently of blood-poisoning and its legitimate causes, are of comparatively rare occurrence. If, then, we have such an almost universal evil to deal with as septicemia, and if that septicemia is, in thirty-seven cases out of thirty-nine, clearly traceable to the poisonous fluids effused in the peritoneal cavity, is it not self-evident that the indication, both of prevention

and cure, is to draw off these poisonous fluids in the speediest and most direct way possible?"

The author awards to Dr. E. R. Peaslee the merit of having first recommended and practiced washing out the peritoneum with disinfectants, so early as 1855.

"To him (Dr. Peaslee) we owe the principle of intra-peritoneal medication. I claim only to be his coadjutor. But the rule that he would establish for exceptional cases I wish to make applicable to all alike; and instead of washing out the peritoneal cavity at the top, I propose to open it at the bottom, as he did in 1855, and let the fluids run out spontaneously and continuously. The natural outlet of the peritoneal cavity is through the Douglas *cul-de-sac*. If the drainage through this *cul-de-sac* be made promptly and thoroughly, there is every reason to believe that pyemic collections, such as happened to Mr. Spencer Wells, could never take place; and that septicemic poisoning would in a great measure be prevented."

Dr. Sims proposes, in brief, to puncture the *cul-de-sac* of the vagina behind the cervix uteri, and to pass a tube of some sort into the peritoneal cavity to drain off any effusion that may take place in said cavity. He proposes to do this in every case of ovariotomy, whether there are adhesions or not. If in three or four days we see that there is no necessity for this precautionary step in the operation, we have only to remove the tube, and in twenty-four hours the little puncture closes up spontaneously. The puncture adds nothing to the danger of ovariotomy, cannot possibly do the least harm, and may be the means of saving life.

LATENT GONORRHŒA IN THE FEMALE.

Dr. E. Noegerath, of New York, recently published in Germany a small work under the above title, which has received a great deal of attention.

The theory of Dr. Noegerath is so startling, and so important in the physical and moral issues which are involved in its acceptance, that it demands the earnest and careful consideration of the medical profession.

The author concludes with these propositions:

"1. As a rule, gonorrhœa, both in the male and female, persists during the lifetime of the individual, in spite of apparent cure.

"2. There exists, therefore, a latent gonorrhœa in the male as well as the female sex.

"3. This latent disease, both in the male and female, may cause either a latent or an acute gonorrhœa in a previously healthy person.

"4. A latent gonorrhœa manifests itself in time as acute, chronic or recurrent peri-metritis, or ovaritis, or as a catarrhal affection of the individual parts of the mucous membrane of the genital tract.

"5. The wives of those men who, at any period of their lives, have had a gonorrhœa, remain, as a rule, sterile.

"6. Those who may become pregnant, either abort or bear only one child. In exceptional cases three or four children may be produced.

"7. A fungous can be developed from the vaginal secretions of women who are affected with a latent gonorrhœa, which is completely analogous to that obtained from the product of an acute attack of gonorrhœa in the male."

Dr. Noegerath estimates that eight hundred out of every one thousand men have suffered at some period of time during their life from gonorrhœa, and that these eight-tenths of our male population are "doomed beyond hope; no life-long repentance, no rigorous asceticism, no known method of treatment, no assurance derived from years of continued health and apparent freedom from disease, can save them, for the consequences of their sin will inevitably be visited—not on their children, for in the majority of cases paternity is denied them, but—on her whom they hold nearest and dearest, for *infection* and *sterility* must be her lot."

At a meeting of the Obstetrical Society of Edinburgh, held April 23, 1873, this subject was introduced for discussion by Dr. Angus Macdonald.

Dr. Macdonald believed that Dr. Noegerath had hold of a great idea, and one which possessed a large amount of evidence in its favor, and that although he regarded his assumptions as extravagant, they deserved the careful attention of gynæcologists.

Dr. Matthews Duncan coincided to some extent in the deductions of Dr. Noegerath, but he also thought that Dr. N. had gone too far in his conclusions.

Drs. Keiller and Young, however, affirmed that their experience

did not support the views of Dr. Noegerath, and stated that they had often treated married men for gonorrhœa, and their wives had never complained of suffering from the symptoms alleged to be produced by it, and that they had never noticed any falling off in their fertility.

DILATATION OF THE FEMALE URETHRA.

Dr. Oscar H. Allis reports, in the November number of the *Obstetrical Journal of Great Britain and Ireland*, two cases in which he had successfully dilated the female urethra for the removal of two large calculi (the circumference of the largest being three inches and a half) in one case, and in the other of a polypus attached to a roughened, thickened portion of the bladder, at a point corresponding to the right side of the pubes. In both cases the dilatation was effected in about fifteen minutes, under ether, and in neither of them was there left any incontinence of urine.

ARTICLE III.—*Transactions of the Chicago Society of Physicians and Surgeons. Meeting of December* 8, 1873. Reported by PLYM. S. HAYES, M.D., Chicago.

The Society met in Parlor No. 1, of the Grand Pacific Hotel; the President, Dr. A. Fisher, in the chair.

The Censors reported favorably on the applications for membership of Drs. Chas. Hayes, Simons, Tucker, Henrotin, Jr., Hews, and Hamill, who were unanimously elected.

Dr. Wood read a paper on "Waxy Kidney," which he illustrated by a case from practice.

Dr. Jackson, Chairman of the Section of Obstetrics and Diseases of Women and Children, then read the report of the sub-section of Gynæcology.*

After reading the report, the Doctor, by request, gave an account of two cases of fibroid tumors of the uterus, which were treated with hypodermic injections of ergotine. One of the cases had recovered, while the other was yet under treatment, and improving. The solution used was one part of ergotine and three of water.

* Published in full in *Chicago Medical Journal*, February, 1874.—ED.

In one case the injections over the tumor were followed by abscesses; subsequently the region of the deltoid was selected, and the injection introduced deep into the muscular fibres, with as good result as when made over the tumor.

Dr. Owens described a method of treating the pedicle after ovariotomy, by means of an instrument which kept up a continuous traction on the wire ligature. He gave a description of the means employed in cleansing and disinfecting the abdominal cavity after ovariotomy, which consisted of a nasal douche that had inserted in the end of the tube a gum-elastic catheter. The catheter was introduced into the abdominal cavity through the lower portion of the wound, the douche holding the liquid being at the same time held above the patient; when the douche was nearly emptied, it was held below the patient, thus forming a siphon of the tube and emptying the abdomen.

Dr. Owens then reported the following case:

Mr. ——, aged 33, contracted syphilis when in the army. Two years ago the epiglottis, uvula, and part of the soft palate, were destroyed by syphilitic ulceration. The cicatrix contracting left only a small orifice between the pharynx and the mouth. The patient could not talk above a whisper; and when eating or drinking lies on his back with head and shoulders somewhat elevated; he forms a bolus of his food, and by means of the tongue throws it into the throat, where it is grasped by the pharyngeal muscles, while the posterior portion of the tongue partially covers the larynx. He experiences more difficulty in swallowing liquids than solids, but rarely does anything enter the trachea. The Doctor then exhibited the patient.

Dr. Hyde submitted the following resolution, which was unanimously adopted:

WHEREAS, We have read the memorial relative to the Medical Corps of the Army, addressed to the Senate and House of Representatives of the United States, which memorial was prepared in compliance with the unanimous resolution of the American Medical Association, adopted at its last meeting, in St. Louis, Mo.; and

WHEREAS, We heartily concur therein; therefore

Be it resolved, That we, the Chicago Society of Physicians and Surgeons, respectfully invite the attention of our Representatives in Congress to the memorial, and earnestly request their aid in securing the passage of the draft of a bill which accompanies it, entitled "A Bill to Increase the Efficiency of the Medical Department of the Army."

Upon a motion of Dr. Jackson, the President appointed Drs. Jackson, Lyman and Davis a committee to prepare and submit a fee bill to the Society.

Dr. Lyman moved that a committee be appointed to consult with the Chicago Medical Society in regard to the feasibility of having quarterly a union meeting of the two Societies; the motion was laid over until the next meeting.

Dr. Owens proposed the following resolution, which was carried:

Resolved, That a committee of two be appointed by the Chair, to be known as the Committee on Clinical Reports, who shall cause to be presented to the Society, monthly, clinical reports from all medical institutions which may be found accessible.

The meeting then adjourned.

Selections.

Cases of Peripheral Paralysis, their Causes and Nature. By S. G. Webber, M.D.

The nerves are generally protected from slight injuries by their situation. This is not, however, universal, and several nerves pass near the surface or over the bony prominences, so as to be more or less exposed to injury. Of course, severe injuries may affect nerves as well as other structures. The protection afforded by being on the inside of a joint, as in the axilla, fails in case of dislocation, and the head of the displaced bone may seriously injure the neighboring nerves.

Symptoms arising from pressure vary greatly, according to the severity with which the cause acts and the length of time during which the pressure is exerted. This probably explains a difference of opinion in regard to the causation of paralysis of the radial nerve. Duchenne, in his second edition, recognizes only a rheumatic origin. Panas, in a memoir read in 1871 before the Academie de Medecine and lately published,* refers all such cases to pressure as the cause. Duchenne, in the third edition of his work, refers to Panas' memoir, and says: "I admit that, in some cases, compression of the posterior part of the fore-arm or of the radial nerve should exercise a certain influence; but it seems to me un-

* Archives Generales de Medecine. Juin, 1873

questionable that, in the numerous clinical cases which I have observed for more than twenty years (about one hundred), the action of cold has played the chief part in the etiology of this form of paralysis."

The radial nerve is not the only one which suffers from pressure or the action of cold, and it is not unlikely that all such cases agree in symptoms more closely than is apparent from published records, the intensity of some symptoms varying in different cases.

When nerves are divided, the peripheral end and the muscles which they supply degenerate; after reunion of the nerve, restoration, more or less complete, takes place. The electrical reaction of the nerves and muscles suffers a corresponding change, which is characteristic. A few days after the injury, the muscles lose their sensitiveness to the action of the faradic or induced current, and this loss increases until the strongest faradic current, applied by means of moist electrodes to the skin over the muscle or its nerve, no longer excites contraction. When a nerve is entirely separated from its centre, this extreme limit of change is reached within two weeks. In many cases, not all, the reaction of the muscle to the galvanic current is increased, while that for the faradic is diminishing. Later, as the degenerative change in nerve and muscle advances, the reaction to the galvanic current diminishes and finally disappears. With this, there is more or less atrophy of muscles.

When the nerve is restored, the reaction to the galvanic current usually reappears first, then voluntary motion, and, finally, the reaction to the faradic current. This order of return to normal conditions is not invariable.

If only a few fibres of a nerve trunk are injured, only a partial paralysis will follow, unless subsequent inflammation involves the whole trunk. One muscle alone may be paralyzed, or, if there is more than one source of innervation, it may be only weakened, and may still respond to the will and to electricity, though less perfectly than in health. If, instead of division of fibres, there is only a slight injury, every grade of change in their functional relations may be found from normal to entire loss. To this, and perhaps owing to hasty observation, is probably due the difference in opinion to which reference has already been made.

The means by which nerves may be compressed are various: a crutch pressing on the nerves in the axilla is not uncommonly the agent by which the compression is made; a wide board carried under the arm may act in the same way; one writer mentions badly fitting corsets; a dislocated bone, humerus, or femur, or other bone, may press on the nerves in the neighborhood of the joint; certain positions taken by the limbs during sleep, or the pressure of one part on another, as the head on the arm; a bandage applied tightly to a limb,—these are ways in which pressure, sometimes

very gentle, but long-continued, may cause paralysis. A fall or a blow may exercise a more violent pressure of short duration, and is not unfrequently the cause of local paralysis and wasting. As the nerve is more severely bruised, and in part or entirely ruptured, compression is rather too mild a term, and contusion describes the injury better; but sometimes it is not easy to decide whether compression or contusion is the better. Often, in such cases, the muscles are paralyzed and suffer atrophy as a direct result of the injury.

That the severity of the cause producing the lesion has a controlling influence over the change in the electrical reaction, is the probable explanation of the difference in the following cases:

CASE I.—D. C., aged 23, fell, about seven weeks before I saw him, bruising his shoulder and breaking his collar bone. The deltoid and biceps were extensively wasted; there was inability to raise the arm or to flex the elbow. The muscles of the forearm were not affected. The triceps brachialis was scarcely at all implicated. The strongest faradic current the patient could bear caused very little if any contraction in the deltoid and biceps. The skin covering these muscles was very insensitive. The patient was seen only a few times, and gave up the treatment by electricity, saying he did not have time to attend. The atrophy of the deltoid may have been due to direct violence; that of the biceps, and the slight injury to the triceps, were probably secondary.

CASE II.—Lizzie B. was first seen early in April. About January 1st, she fell, striking her shoulder. The arm felt lame, but was not very painful. Immediately after, she was attacked with variola, and only three weeks later was it discovered by her physician that the arm was out of place. He replaced it, and the arm remained bandaged for five or six weeks. As nearly as could be learned from her statement, it would seem that immediately after the fall she had some power over the arm, but while sick and before the bandage was put on, this was lost and was not recovered.

She first applied at the City Hospital as an out-patient, and Dr. Bolles sent her to me.

When seen, the fingers were weak, the thumb and forefinger being weaker than the others. All the muscles of the forearm responded, however, to the will. The elbow could be bent and nearly straightened. The only motion of the arm at the shoulder-joint was a slight pendulum-like swing backwards and forwards. The shoulder could be raised a little, as in a shrug. There was a sense of pricking just over the head of the humerus and at the elbow, not in the fingers. There was lessened sensibility over the shoulder and on the outside of the arm. Sensation inside of the arm, over forearm and hand was normal. There was a "hard ache" in the shoulder, so severe as to keep her awake at night.

The deltoid, supra- and infra-spinatus, and perhaps the serratus

magnus, were atrophied, especially the anterior part of the deltoid, causing the head of the humerus to project so prominently as to raise the question at first as to whether it was in its proper place. All the muscles responded fairly well to electricity, making allowance for their diminished bulk.

Galvanism was used, the positive pole being placed on the back of the neck, and the negative on the nerves, and stroked over the muscles. Passive motion was also used, and she was directed to rub the shoulder. The pain became less, so that she could sleep better. After three applications of electricity, she could use the arm to sew, could pin her cloak, and could raise the arm somewhat from the side.

She attended only very irregularly, being away for many days out of town. The last record was made after nine applications of electricity, more than a month after the first visit. The deltoid had then increased in bulk, covering the acromion and head of the humerus much more than at first. Motion was possible in all directions, but the arm, with forearm bent at right angles, could be rotated outwards only about one-half, and could be raised only to a horizontal. She could sweep, sew and iron, but had not strength enough to wash.

It may be a question as to whether the humerus was dislocated, or whether the atrophy of the deltoid caused it and the acromion to become so prominent as to simulate a dislocation; also, whether the restrained position of the arm had any part in the causation of the atrophy. This seems unlikely, as six weeks' disuse and the bandages necessary in case of dislocated humerus would not be likely to affect the deltoid. And she thought motion was lost before the bandage was applied.

While this case was under treatment, I saw another patient, a lady, who, from a fall three months previously, was suffering from inability to use her arm. The same muscles were affected, though the posterior fibres of the deltoid suffered more than the anterior. There were some symptoms of neuritis, and hyperæsthesia over the course of the nerves, with loss of faradic contractility, but preservation of susceptibility to the galvanic current. The treatment was short, owing to removal out of town, and but little advantage was gained from the two or three applications made.

In these cases, the cause was almost identical in nature, but undoubtedly varied in intensity. A similar variety in the symptoms, especially in the electrical reaction of the muscles, is found. In the first case, only seven weeks had elapsed from the time of the accident until I saw him, yet there was extensive atrophy and loss of electro-muscular contractility. In the second case, after three months, the latter was still retained; while in the third case, after three months, it was absent. In all, there was paralysis as a prominent symptom, with anæsthesia in two and hyperæsthesia in one.

Cases of paralysis from dislocation of the humerus are reported in medical writings. I have never seen a case, unless that of Lizzie B. is such. A while since, I was consulted by letter in regard to a patient suffering from such an injury. The deltoid and biceps were most affected, and there was partial anæsthesia over the deltoid.

Cases of paralysis following dislocation of the femur are rare. An interesting case is reported by Onimus and Legros.* A man, 46 years of age, received a mass of earth and stone on his left thigh. There was a dislocation, probably ilio-ischiatic, of the femur. There was severe pain, anæsthesia, and inability to move the leg. After reduction, the pain ceased, but the numbness remained, and he could not walk. After a slight attack of erysipelas of the face, pain in the leg returned. Five months after the accident, the left leg was found much emaciated, colder to the touch than the other, œdematous, especially around the tibio-tarsal joint. The leg could be feebly flexed and raised, the foot could not be raised nor the toes extended; toes flexed only partially. Sensation was much diminished; pressure was painful. Walking was not possible, and standing was painful. Electro-muscular contractility was very much enfeebled in all the flexor muscles of the leg, somewhat so in the extensors. It was diminished in the muscles of the calf, and gradually disappeared in the peronei and the tibialis anticus and extensor communis. Under the application of the galvanic current, the pain ceased, the œdema disappeared, and the patient could walk without a cane.

A much more common seat of paralysis is the radial nerve. It occurs, generally, during sleep. It is in regard to this paralysis that the difference of opinion between Duchenne and Panas, above referred to, exists.

Duchenne, in his third edition, says that the paralyzed muscles retain intact their electro-muscular contractility, and generally the muscular sensibility is not diminished. Once only has he observed enfeeblement of the cutaneous sensibility in the forearm and hand.

Panas also mentions the same characteristics, adding, however, that cutaneous sensibility may be perverted.

In the cases which have happened to come under my care, the electro-muscular contractility, as compared with the other side, has been found diminished when such comparison has been made at a long enough interval after the origin of the paralysis. If the two sides are not compared, the contractility remaining is sometimes so great that it might be considered normal; yet on making the comparison it is found more or less diminished. I have found the cutaneous sensibility for touch and temperature and pain almost

* Traite d'Electricite Medicale. Paris, 1872.

always diminished, or perverted, and for electricity sometimes increased. In the cases where paralysis has been most marked and existed longest, I have been able to see no difference in its nature or quality from that found in the cases due to severe lesion above recorded, excepting that the muscular atrophy was not marked enough to be recognized. Had the paralysis continued longer, it is possible that atrophy might have been found also.

In the number of this Journal for July 6th, 1871, I published four cases of this form of paralysis. In three, the electro-muscular contractility was diminished as compared with the other side; not mentioned in the other. Sensibility was diminished in three, perverted in the other. There was also some œdema of the hand, discolored surface, a mottled appearance and diminished heat as measured by the touch, once by the thermometer.

In several cases which I have since had under treatment, the same general characteristics have been observed in regard to sensation, coloration of skin, and apparent temperature. In only one has the electro-muscular contractility, as compared with the other side, been noted; the statement has merely been made that the muscles affected responded to faradization. In one case, it is noted that the muscles moving the thumb and index finger responded poorly to the faradic current, better to the galvanic.

Of the cases first published, in Case I, the paralysis came on while lying with the arm over the edge of a sofa in a drunken stupor; in Case IV, it came on during heavy sleep after great fatigue and a glass of whisky; in Case III, it came on as the direct result of carrying a basket of lemons on the shoulder and arm, the basket pressing on the outside of the arm, over the course of the radial nerve. Case II, may have been caused by a draught of cold air, in accordance with Duchenne's theory.

In the half-dozen recent cases, the paralysis was first noticed after sleeping. In only two was there any chance that cold was the cause. In one of these, seen in March, the patient said that, being warm, she threw off a part of her covering, but was not aware that she was chilled; she thought she lay on her arm, and slept rather heavily towards morning. The other was very slightly affected, and is for that reason reported.

Case III. Mrs. L. Seen with Dr. Ingalls. Had rheumatism ten years ago, and chronic arthritis since; at times pain in arm, especially during dull days. The joints were rather swollen. Cardiac enlargement with murmurs. The day before I saw her in the evening, she fell asleep in her chair; could not tell on which hand she leaned; slept less than forty-five minutes. On awakening, the left arm felt numb and prickly, and she had lost in part the use of the left hand. The sense of prickling passed off, but the power to use the hand did not return. The back of the hand, the thumb and fingers, were less sensitive than normal, the

change being most marked in the thumb. The extensors were weak; pronation and supination were possible; flexion was slightly interfered with, there being a sense of stiffness. The hand was somewhat swollen, slightly congested, but not cold. All the muscles responded to the faradic current.

The effect was so recent, and seemed so slight, that only bathing in hot water and friction were advised. Recovery was perfect.

In this case, perhaps, time enough had not elapsed for change in the electrical reaction to appear. Whether pressure was the cause, or cold, it might be difficult to decide; certainly the symptoms resembled those found in other cases where pressure was undoubtedly the cause.

Taking the accounts given by Duchenne and Panas, it will be seen that several of the cases which I have reported differ in regard to the electro-muscular reaction, and all differ in regard to the condition of the cutaneous sensibility.

When a patient is seen the day after the origin of the trouble, it may well be supposed that the electrical reaction of the muscles would be normal, but after a few weeks have passed, it would probably be found, on comparing the two sides, that there is, almost always at least, a slight difference. The sensitiveness of the muscles to electrical stimulants varies much in different individuals, depending perhaps upon the amount of adipose tissue, the softness and suppleness, or dryness of the surface, and perhaps, more than all, upon the person's occupation. I have found the greatest susceptibility in teachers of the piano-forte. Hence, if only the affected arm is examined, the electrical contractility may be considered normal, when really it is diminished.

The cases which have come under my observation, where cold could be considered as the cause of the paralysis, were not essentially different from those where it was caused by pressure, unless it be that the electro-muscular contractility was either not affected or not tested as compared with the other side. In a case reported by Rosenthal,* which was probably caused by chill, it was decreased. In a case reported by Onimus and Legros, of so-called rheumatic paralysis of the anterior tibial nerve, it was likewise slightly diminished. In another case reported by them, the electrical reaction of the deltoid was below the normal for the faradic current, increased for galvanic.

It is hardly necessary to multiply instances.

As in all these cases the symptoms are identical, making allowance for variations in the severity with which the injurious agent acted, and the difference of time between the origin of the trouble and the examination, it is reasonable to consider the con-

* Electrotherapie, 2nd Edition, p. 269.

dition of the nerves, induced by these different agents, the same. It is only another instance where the same pathological condition is produced by different agents.

There is first pain, a peculiar pricking sensation, with this is numbness, and loss of motor power. The pricking sensations pass away, but the numbness and loss of power persist. The limb generally becomes œdematous, has a mottled or purplish color, and is frequently cooler than its fellow. To this may be added, in cases which are not seen soon after their origin, a diminution of faradic contractility in the muscles, sometimes the galvanic current acting more readily than normal. In recent cases, and in cases of slight intensity, some symptoms may be wanting.

A slight neuritis would explain all the symptoms.

The pricking is caused by irritation of the sensitive fibres, the numbness and loss of motor power by impaired conductility due to the inflammation. The œdema and discoloration, and the sinking of temperature, are due to implication of the vaso-motor fibres in the inflammation. The cause being slight, or of short duration, these symptoms are not found in their highest degree of development, and some cases recover easily; others, where the cause acted with more severity, are more protracted, and a few only result in atrophy and permanent disability.

Jaccoud, describing the symptoms of neuritis, gives as the principal, swelling of the nerve, no fever, pain following the course of the nerve, even to its terminal branches, increased by pressure, tactile sensibility diminished with persistence of spontaneous pain—painful anæsthesia. In mixed nerves, these symptoms are accompanied with startings and contractions of the muscles, to which soon succeed motor paralysis with loss of reflex movements and of the electric contractility. If the paralysis persists, muscular atrophy, lesions of nutrition, erythema, vesicular eruptions, and, in chronic cases, deposit of pigment and arthropathy. These symptoms are similar to those found in the cases already reported.

It would seem, from the consideration of the cases reported, that Duchenne is wrong in regard to the exciting agent of paralysis of the radial, and that, as Panas contends, it is generally caused by pressure. I cannot help thinking that both are wrong in regard to some of the important symptoms which are present in nearly every case, especially if it is of more than a week's duration. It is hardly necessary to refer to other authors, as these two represent the two phases of opinion, and most others refer to Duchenne. Eulenburg has, however, stated the symptoms correctly, and says that Duchenne is not correct in denying the loss of electro-muscular contractility. He also recognizes pressure during sleep as a cause.

Another cause of neuritis, which is not generally mentioned as such in text books, is overwork.

The following is an interesting case, showing as it does, in a mild degree, all the symptoms usually found in such cases. The patient was sent to me by Dr. Ingalls.

Case IV. Miss E. D., aet. 22, about three weeks before I saw her, while taking care of a brother sick with typhoid fever, noticed a tingling in the fingers of the right hand; they and the hand were also numb. These sensations occurred in the day time; there was no special strain or other cause for them, except the constant labor of nursing. With the numbness. was motor weakness. There was a steady increase of the affection. The pain was worse at night, and for a week began in the shoulder externally, and ran down to the fingers.

Two points could be distinguished as such, three-eighths of an inch nearer on right than on left back of hand, and on palmar end of right index finger one-eighth of an inch nearer. Sense of prick was more acute on the right, but the sense of mere contact with a blunt steel was more acute on the left.

There was a tenderness over the nerve, at the bend of the elbow, and over the ulnar nerve. The action of biceps and of the extensors in forearm was not easy, there being a sense of stiffness. The faradic contractility of the extensors of forearm was diminished; the galvanic contractility was increased, the muscles reacting to ten cells on the right, and to only fourteen, or perhaps thirteen, on the left. The flexors were not tested by electricity.

The galvanic current from fifteen cells was used, the positive pole being placed on the back of the neck, the negative passed over the muscles and held quietly over the nerves. After two applications, the faradic contractility of the muscles had improved. On the fourth visit, the sensation on back of the two hands was equal, and the same as it was on the left at the first visit. Ten days after I first saw her, it is recorded that she had no pain in the arm; it was strong and all right.

Soon after, other cases quite similar were seen, one seeming to originate from overwork in nursing, another from overuse of the arm in sewing and playing the piano, with, perhaps, a strain as predisposing cause; two others were from overwork in playing piano. In two cases, the electro-muscular contractility seemed increased on the affected side.

In some of these cases the affection of the nerve perhaps hardly deserved the name inflammation, possibly congestion would be more correct, there being, indeed, only the first stage of inflammation where several of the functions were increased rather than diminished.

Of paramount importance to the patient is the fact, that all these cases, so far as I know, where treatment has been commenced early and persisted in, have recovered. Where treatment

was delayed, the cure was longer in being reached, but generally could be expected. The longest duration was two years before treatment; treatment extended through three months, with almost complete recovery.

The treatment consists in the application of either the faradic or galvanic current to the muscles and nerves affected. The galvanic current would probably be found more generally successful in a shorter time, though in many cases the other accomplishes all that is desired.

A few cases, as in Case III, may recover without electricity, but in most cases that agent will at least hasten a cure, and in other cases a cure has not been obtained after a year or more, without the use of the electricity, but followed soon after that agent was employed. It is not, then, always safe to wait for the unaided efforts of nature.—*Boston Med. and Surg. Journal.*

Bloodless Surgery of the Extremities. By J. E. KELLY, L.R.C.S.D., Surgeon to Jervis St. Hospital, and Lecturer on Anatomy and Physiology in the Ledwich School of Medicine, etc.

Within the last fortnight I have applied Esmarch's method to four surgical cases. This coincidence induces me to detail some facts directly bearing upon the question of "Bloodless Surgery," together with a few points worthy of consideration.

Whether we concede to Esmarch the honor of an invention, or merely the adaptation of a rarely applied and undeveloped principle, is of little moment to those who derive most benefit from an expedient which we must regard as constituting one of the most striking advances in modern surgery. Simplicity and easy application are perhaps the strongest recommendations of a method, the novelty of which will be my excuse for briefly describing it. A strong elastic bandage is applied in the ordinary manner to the extremity, firmly and slowly; a piece of india-rubber tubing of the diameter of the thumb is wound very tightly round the limb immediately above the margin of the bandage, which is then removed. The preparations are complete, and the limb is perfectly bloodless until the tubing is removed. The facility of operating under these circumstances can hardly be realized. The structures have a semi-transparency resembling that resulting from preservation in turpentine or glycerine, and, as may be expected, they are picked out and distinguished with remarkable facility. The operations upon which Esmarch's method confers the greatest advantage are those in which much blood is ordinarily lost, or those

performed under circumstances which prevent the operator from providing efficient aid. Amongst the former, resections and explorations, either for foreign bodies or where preliminary investigations are judicious, may be specially noticed. These preliminary measures, so conservative in their aim and results, have often been frustrated by the danger or dread of the consequent hæmorrhage. Now we are enabled to pursue them bloodlessly. In provincial and in military practice a surgeon must frequently operate without skilled assistants, or perhaps without any. Here again the advantages of the method are indisputable.

Against the obvious advantages of the expedient we must in justice weigh some well-founded objections. While advocating, and in some instances practicing bloodless surgery, I regard it as being unnecessary in many cases, and in others as only to be used with great caution. In cases where collections of septic matter exist, Esmarch warns us against the danger of favoring by pressure its entrance into the circulation. The absence of bleeding points during the operation may cause us to neglect to secure some vessels which will subsequently be troublesome. This occurred to a suggestive extent in the second of the accompanying cases, but the hæmorrhage was quickly checked by the application of ice. As observed in the amputations performed in Guy's and other hospitals, the edges of the incisions may slough. I noticed this in my first case only, and my observations on it and the succeeding cases induce me to regard the sloughing as proportionate to and dependent on the duration of the pressure of the elastic bandage, and not to the bloodless condition of the tissues. In the first of the series, being anxious to do full justice to the method, I applied the bandage in the ward, before the removal of the patient to the operation theatre, with the view of making the limb perfectly exsanguineous. When the patient was chloroformed, the caoutchouc tubing was applied, and the bandage, after being on for about ten minutes, was removed. The results were perfect; so bloodless were the parts that in my subsequent operations I allowed the bandage to remain on but for a few minutes, and in my last, immediately after the limb was entirely enveloped, I applied the tubing and removed the bandage. This operation was completely bloodless, and along the line of the incision not a trace of sloughing could be observed; in some parts even there was an effort at union by adhesion, but the condition of the deeper structures would not admit of such a rapid closure. I am inclined to regard sloughing as unimportant in these cases, which are really benefited by the method. In amputations and other operations which can be completed in a few minutes, I cannot recognize the necessity for departing from the old and efficient method of controlling hæmorrhage by direct arterial compression. Hence, I question the importance of a contingency which can be avoided. In mili-

tary and provincial practice, where, as already remarked, the surgeon must amputate without sufficient skilled assistants, he is free to select between the immediate danger of hæmorrhage and the remote disadvantage of sloughing of the flaps; observations are as yet deficient as to the constitutional effects of the expedient. The quantity of blood lost during operation is frequently a most desirable antiphlogistic. By Esmarch's method, for good or for evil, this is prevented, and severe inflammation may follow the operation; however, in such cases the surgeon can conveniently resort to phlebotomy, or other antiphlogistic treatment, as suggested by his judgment. Again, in disease or predisposition to congestion in any of the important viscera, as the lungs or brain, we may well hesitate before we throw the entire amount of blood contained in a limb, either temporarily or permanently, into the general circulation. We must also remember the possibility that this quantity of blood may embarrass the pulmonary circulation and aid in developing the fatal effects of the anæsthetic. These are points which can only be settled by experience, and they appear to me to be worthy of the consideration of the profession.

CASE I.—*Necrosis of the Entire Tibia.*—Thomas ——, æt. 17, disease of eight months duration. Commenced with violent pain about the tuberosity of the tibia. His leg became flexed, and an abscess formed which pointed and burst about the tenth day. A series of these occurred along the front of the leg. Admitted November 10th, with symptoms indicating necrosis of the entire shaft of the bone. Operation on November 15th. Commenced by an incision reaching nearly from the knee to the ankle. The new osseous case was three-quarters of an inch thick, and was opened with a chisel, at the expense of much labor, to the same extent as the primary incision. The bloodlessness of the operation may be estimated by the fact that when the sequestra were removed the cavity did not contain a drop of blood. The case is progressing most favorably, and the cavity is lined by healthy granulations. The edges of the incision sloughed in their entire extent, but only to a limited degree.

CASE II.—*Necrosis of Lower End of Tibia.*—Joseph ——, æt. 15, disease of two years duration. Commenced by a pain in the ankle, and an abscess formed above the articulation. The bone became expanded at its lower third, and a succession of abscesses formed on the anterior and inner surface of the leg. Admitted October 29th, with symptoms of necrosis of the lower end of the tibia. After some general treatment the operation was performed on November 13th. A portion of expanded bone was chiseled out, and a few small sequestra were removed from the centre of the mass. This case also progresses favorably. Some smart hæmorrhage occurred about two hours after operation, but it was easily suppressed by the application of ice.

CASE III.—*Necrosis of the Shaft of the Humerus.*—Margaret ——, æt. 15, disease of eight months duration. Gives the history of rheumetic fever, for which she received hospital treatment; abscesses formed at various points along the arm; admitted November 20th, and operation on the 25th of November. A long incision on the outer side of the arm, and the new osseous case, which was badly developed, was cleared of the sequestra. The special interest in this operation is owing to the application of the tubing above the arm, or round the clavicle and the neck of the scapula. Notwithstanding the protection which the vessels receive from the bones in the neighborhood of the last stage of the subclavian artery, this operation was as bloodless as any of the preceding ones.

CASE IV.—*Anchylosis of Elbow Joint; Resection.*—Anne ——, æt. 23, disease of four years duration, resulting from an injury to the joint. Admitted November 28th. Operation, sub-periosteal (November 29th), performed by means of an external incision. The osseous mass was cut through with a forceps, the end of the bone turned out and sawn off. The case progresses most favorably. The wound was dressed before the tubing was removed, and during, or after the operation, or at any time, not a single drop of blood was visible.—*Medical Press and Circular.*

A Case of Hæmorrhage from the Internal Carotid Artery treated successfully by the Ligature. By H. B. SANDS, M.D., Surgeon to the Bellevue and Roosevelt Hospitals, etc.

The following case is believed to be unique, and to constitute an important contribution to the annals of operative surgery.

On October 22, 1872, I performed disarticulation of the left half of the lower jaw, on account of a malignant scirrhous tumor, occurring in a gentleman, fifty-three years of age, and developed chiefly on the inner aspect of the ramus and body of the bone, near the angle. The usual incision having been made, the jaw was divided on the left of the median line, through the socket of the corresponding canine tooth. The bone was then forcibly everted, while I quickly severed, by means of a pair of stout scissors, the soft parts covering the internal surface of the tumor, and then completed the disarticulation. Copious arterial hæmorrhage, checked temporarily by the pressure of the left forefinger, attended this manœuvre, and, on subsequent examination of the tumor, there were found running through it an inch of the trunk of the external carotid artery, and portions of about equal length of the digastric muscle and the hypoglossal nerve. These

parts were necessarily divided and removed, together with the tumor. The external carotid, together with some smaller arterial vessels, having been tied, I was about to close the wound, when free venous bleeding took place from a small opening that I had accidentally made in the internal jugular vein. After some reflection as to the best course to pursue, I seized the margins of the wound in the vein, and applied a lateral ligature, not occluding the calibre of the vessel. The wound was then closed by sutures, except at its middle part, where an opening, half an inch long, was left for the exit of the ligatures. During the operation it was noticed that the upper part of the common carotid, and the internal carotid artery, from its origin to the base of the skull, were exposed, and could be seen pulsating at the bottom of the wound.

On the tenth day after the operation, at ten o'clock in the evening, while my partner, Dr. Curtis, was engaged in cleaning the wound, a sudden escape of blood took place, both from the external opening and through the mouth. Dr. Curtis at once compressed the common carotid with the left hand, and ripping open the upper end of the original incision, passed in two fingers of the right hand, and made pressure over the line of the internal carotid. The hæmorrhage ceased at once, about two ounces of blood having been lost, whose color gave no certain indication of the source of the bleeding. Pressure was successfully maintained until my arrival, at the end of about half an hour. It was then found that one of the upper two fingers covered the bleeding point, which was evidently above the carotid bifurcation, and Dr. Curtis was relieved by my pupil, Mr. Shafter. The ligatures were then examined, and that on the internal jugular vein identified and found to be attached far below the bleeding point. No ligature could be identified as belonging to the external carotid artery. After looking at the ligatures, I, without giving ether, prolonged the opening in the neck downward along the anterior edge of the sterno-mastoid muscle, and endeavored to reach the common carotid high up. Owing to the altered condition of the parts, this proved impracticable; so, having divided the omo-hyoid muscle, I exposed the artery just below it, where the tissues were normal, and passed, without tightening it, a ligature.

The common carotid was then compressed between the ligature and the finger, and pressure relaxed upon the bleeding point. A very vigorous spurt of blood followed, and pressure was resumed.

An examination of the surface, immediately above the seat of hæmorrhage, revealed a very soft pulsation, just beneath the granulations along the line of the internal carotid. The latter vessel I directed Dr. Curtis to dissect, while I controlled the bleeding. The internal carotid was exposed by scratching through the condensed tissues with the point of a grooved steel director; a ligature was passed and was immediately tightened, as

was just afterward the one encircling the common carotid. I then lifted my finger from the bleeding point, and no gush followed, but a bleeding continuous in character, and small in amount. This was easily controlled by pressure just below the opening, and for the first time the exact seat and nature of the latter were completely open to inspection. The blood was found to come from a small, circular, clean-cut ulceration in the side of the internal carotid artery, situated an inch below the upper ligature, and the same distance above the upper border of the thyroid cartilage. Through this opening, the white and glistening surface of the inner coat of the opposite side of the arterial wall was distinctly visible. After ascertaining the opening to be in the side of the internal carotid, I readily exposed this vessel two or three lines below the opening, and applied a ligature, thus cutting off the source of the trifling hæmorrhage which had persisted after the tightening of the first two ligatures. This hæmorrhage must have been caused by the recurrent circulation through branches springing from the stump of the external carotid. The lower portion of the wound was then closed by a few silk sutures, and the rest lightly filled with dry lint.

The operation, which lasted about two hours, was wonderfully well borne, the patient making no complaint. He lost altogether, both during the operation and the antecedent hæmorrhage, not more than four or five ounces of blood, and the pulse continued firm throughout. Milk and iced brandy were administered through the night, and the patient obtained sleep without anodynes.

The subsequent progress of the case was eminently satisfactory. The two ligatures on the internal carotid separated on the ninth day, that of the common carotid on the fourteenth day, and that of the internal jugular vein on the seventeenth day after their application. The upper ligature on the internal carotid had in its noose an offensive white slough of the artery, three-eighths of an inch long, and another hæmorrhage was feared. None occurred, however, and the patient recovered completely without any further unpleasant symptoms.

Remarks.—Lesions of the internal carotid are usually so rapidly fatal, that no opportunity is afforded for surgical treatment. But, even when the surgeon interferes, success is not generally attainable, and, so far as I have been able to ascertain, there is only one other example of recovery recorded besides the one herewith reported. This case occurred in 1807, in the practice of Dr. Twitchell, of Keene, N. H., and, in many respects, it resembled my own. The hæmorrhage was secondary, and took place, ten days after a gunshot injury, while Dr. Twitchell was in the patient's house. He applied a ligature on the cardiac side of the opening in the wall of the internal carotid, but was obliged to

check the recurrent hæmorrhage by means of a graduated compress, as the opening was in that part of the artery which lies just beneath the base of the skull.

From various sources I have collected the following instances of hæmorrhage from the internal carotid. Some were treated, and others were not, while all terminated fatally:

1. A hunter received a penetrating bullet-wound of the face. Hæmorrhage occurred on the third day, after the administration of an emetic. Death took place on the fourth day, during an attempt to tie the common carotid. At the autopsy, the ball was found lying behind this vessel, opposite the bifurcation. The internal carotid showed a longitudinal rent one-fourth of an inch in length.

2. Abernethy tied the common carotid for hæmorrhage from a wound of the neck inflicted by a cow's horn. The patient died thirty hours after the operation, with symptoms of hemiplegia. At the *post-mortem* operation, the facial, lingual, superior thyroid, and internal carotid arteries were found torn.

3. Langenbeck tied the common carotid for hæmorrhage from the internal carotid, caused by the ulceration of an epithelian cancer. Death occurred soon after the operation, and an ulcer, not larger than the head of a pin, was found in the coats of the internal carotid.

4. A. Smith ligated the common carotid for hæmorrhage from the internal carotid, caused by a phagedenic ulcer of the tonsil. The patient died in six hours.

5. In the "Medical and Surgical History of the War of the Rebellion," a case is reported in which the common carotid was tied for hæmorrhage from the internal carotid, caused by a gunshot-wound. The hæmorrhage recurred and carried off the patient.

6. Baizeau tied the common carotid for hæmorrhage from the internal carotid, caused by disease of the ear. The bleeding was not arrested, and proved fatal on the third day. At the autopsy an opening was found in the internal carotid, produced by caries of the walls of the tympanum.

7. Broca performed an operation, like the one last described, and with a fatal result due to hæmorrhage.

8. Billroth, in a case of hæmorrhage from the right ear, due to ulceration of the internal carotid, tied the right common carotid, and, a fortnight subsequently, the left common carotid. Death from hæmorrhage occurred two days after the last operation.

9. Dupuytren reports the case of a man who received a perforating bullet-wound of the neck, at the level of the inferior maxilla Hæmorrhage, which pressure failed to arrest, occurred on the tenth day, and proved fatal on the twelfth day. At the autopsy a wound, one-half an inch in length, was discovered in the internal carotid, two inches above its point of origin.

10. Heyfelder relates that a soldier received a penetrating wound of the left side of the neck, and died of hæmorrhage eight hours after the injury. Ice-bags were the only means employed to check the bleeding. The internal carotid was found to be almost completely divided, three and a half lines above its origin.

11. Beclard states that a traveling charlatan wounded the internal carotid while attempting to excise an enlarged tonsil. The operator fled, and Beclard was summoned just in time to see the patient die from hæmorrhage. A wound of the internal carotid was found *post-mortem.*

In some of the cases above mentioned, namely, those in which the hæmorrhage was due to disease of the petrous bone, the application of a ligature on the distal side of the arterial lesion was impossible, and the case that I have reported is the only one, so far as I am aware, in which a lesion of the internal carotid has been treated by the application of a double ligature to the injured vessel, one on the proximal, and the other on the distal side of the bleeding point. The result affords additional evidence of the soundness of the rule laid down by Mr. Guthrie—a rule which is too often neglected, as is shown by the surgical reports of the late civil war, even at the present day. It is not, perhaps, difficult to explain why a surgical maxim, so generally admitted to be binding, should be so often disregarded. The application of a double ligature to the bleeding vessel is simple in principle, but generally difficult and sometimes impossible in practice. The deep situation of the bleeding vessel, its relation to other important parts, and, in cases of secondary hæmorrhage, the infiltration of the surrounding textures with inflammatory products, offer serious, and sometimes insuperable obstacles to the application of a double ligature near the opening in the arterial walls. In these circumstances, the temptation to apply a simple ligature to the main trunk is very great, and experience shows that this operation, either alone, or, as in Dr. Twitchell's case, in conjunction with pressure, may sometimes insure the desired result. Yet success in such an operation can never be expected, and the surgeon should in no case perform it except as a last resort, and after an attempt has been fairly made to apply a double ligature according to the rule admitted by nearly every surgical writer as imperative. In the present case it is plainly evident that, unless the ligature had been applied above as well as below the bleeding point, death from hæmorrhage would have rapidly and inevitably followed, as it was noticed that the simple interruption of the circulation through the common carotid produced no appreciable diminution in the violence of the bleeding, which, however, ceased almost entirely when a ligature was applied to the internal carotid beneath the base of the skull. The slight recurrent hæmorrhage still going on was controlled by the third ligature, placed just be-

low the bleeding point. This ligature I should have applied at first, instead of tying the primitive carotid, had the state of the parts rendered the requisite dissection practicable.

Finally, it may be interesting to note the success which attended the application of a lateral ligature to the internal jugular vein. In spite of the weight of authority in favor of treating wounds of large veins by the use of a double ligature, completely surrounding the vein above and below the bleeding point, I am strongly inclined, if the wound be small, to trust to a single ligature, applied laterally, so as to include merely the edges of the wound, and not to interrupt the current of blood through the injured vessel. In case the wound were of large size, however, I should then regard the complete ligature of the vein as affording the best guarantee of success.—*New York Med. Journal.*

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*The Physiological Influence of Alcohol.**

This pamphlet is the substance of a paper read by Dr. Edmunds at a meeting of the British Medical Association in August last, and is full of interest, since the question of the use of alcohol is certainly one of the most important of the day. Dr. Edmunds, indeed, states that some one hundred and twenty millions are annually consumed in this country on alcoholic drinks.

Dr. Edmunds shows that pure alcohol is a powerful caustic, and that it does not answer the definition of food, not being innocuous to the system, or capable of entering into the construction of any living tissue. Cane sugar yields about fifty-one per cent. of alcohol, and the thermic power of a pound of sugar is equivalent to that of the alcohol contained in a pound of brandy; but sugar is completely oxydized in the system, whilst a very great portion of all the alcohol taken into the economy is excreted unchanged in the breath and urine.

Dr. Edmunds upon this point cites the opinion of Professor Frankland, that conclusive evidence is still wanting as to the oxydization of alcohol in the system; but there appears to be considerable probability that some at least is oxydized. Hence the food value of alcohol is truly very small.

In large doses, alcohol is a powerful narcotic, and more persons are killed by it than by all other poisons taken together. According to Dr. Edmunds, alcohol, chloroform, opium, and intense cold seem to lessen vital activity by retarding oxydation in the body,

* "The Physiological Influence of Alcohol." By James Edmunds, M.D. Tweedie, Strand. 1874.

just as the flame of a candle burns more dimly when the vapor of alcohol surrounds it.

It is said that alcohol in small doses increases the activity of the heart's action, and that it should therefore be given whenever the pulse is feeble. Dr. Edmunds submits that in a soundly organized animal the power exercised by the heart is an exact measure of the difficulty of keeping the circulation going. The real cause of the capillary current in animals is the same as that which moves the sap in plants, *i. e.*, the vital activity of the tissues themselves. Whilst, then, the sympathetic nerve is duly sensitive, reflex action urges on the heart to get rid of the blood, and thus keeps up a distended state of the arteriales, from which the tissues draw their blood supply. The real pace of the circulation is determined by the general molecular activity of the tissues, and not by the action of the heart.

In feeble and inactive states of the system, the heart should work very gently; and the administration of stimulants in a depressed or aged system, with a view to urge on the movements of the heart, is most irrational.

As a consequence of these views, Dr. Edmunds holds that the true and only object for which alcohol should be used as a medicine, should be in cases where convulsions are likely to supervene in children, or for retarding over-action in some stages of general disease, and he ends with drawing the following conclusions:

1. That all alcoholic beverages are ordinarily taken for the alcohol they contain, and would not be taken were the alcohol abstracted.

2. That the non-alcoholic constituents of these beverages may all be obtained in their most advantageous conditions, and at a fractional cost, in common-place articles of food.

3. That alcohol, if a foo ', is the most absorbable and rapidly diffusing food substance with which we are acquainted, and one, moreover, which is utilizable without effort from the digestive organs, but that in these respects an equal quantity of grape sugar would have nearly the same advantages.

4. That the food value of alcohol cannot exceed that of the sugar from which it is manufactured, and therefore, to use it as an ordinary article of food, must, at the present relative prices of sugar and alcohol, be a vast monetary extravagance.

5. That a considerable portion of the alcohol is excreted from the body unchanged, and therefore, the use of alcoholic beverages must involve fruitless wear and tear of the excretory organs, as well as a total waste of the excreted alcohol.

6. That alcohol, if a food, stands apart from all other foods in its want of innocuousness in its relations to the tissues.

7. That a large proportion of the degenerative changes which lead to disease and early death, grow out of the use of alcoholic beverages.

8. That the presence of alcohol in the blood retards the oxydation of effete matters, and gives a putrescent tendency to the system.

9. That, in large doses, alcohol is a substance which narcotizes all animal tissues, and invariably destroys life if administered in sufficient doses, and that the so-called stimulating effects of alcohol in small doses are really finer shades of narcotization, disguised by efforts on the part of the system to excrete an injurious substance and to compensate for its disturbing influence.

With many of the conclusions come to by Dr. Edmunds we heartily concur; and as a general rule, we think that the mass of medical men would be inclined to counsel mankind to lay aside the use of alcohol and other narcotics like tobacco, and confine itself to simple foods and drinks. Men and women drink alcohol because they like the feelings of narcotism; but sooner or later all persons who use much alcohol begin to feel its poisonous effects in impaired energy and deterioration of some of the muscles of the body necessary to the carrying on of life.

Alcohol, of course, should never be used by healthy men, women or children. In disease we come to some other questions; and must leave the power of alcohol in disease to be treated more fully at another time. Suffice it to say, we believe that the alcoholic days of Todd and of his school are at an end, and we trust that, like bleeding and over-purgation, over-alcoholization may never again be in vogue.

Dr. Edmunds belongs to a society of philanthropists who are truly of immense utility in this country and at this moment. Owing to the many discoveries in the useful arts made during this century, we have in this land acquired sudden and unexampled powers of acquiring wealth; but it is by no means so clear that the way in which that wealth is now being spent conduces to the happiness of the nation. On all sides we see disease and deterioration of morals, the result of indulgence in alcohol and tobacco; and the physician of our time, if he possess any sympathy with his kind, will find no surer road to improve the happiness of the race, than by lessening the fatal proclivity of the masses toward alcohol. All those who wish to know the truth of this matter should read this little pamphlet, which is scientific, well composed, and what is more, *true.—Med. Press and Circular.*

Editors' Book Table.

[NOTE.—All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

Homocultology. An Essay. Published for the Author. For sale at the Progressive Publishing House, No. 24 Fourth Street, New York, and by all Booksellers.

The anonymous author may cry Eureka! he has found not only an idea, but a name for it; a panacea for "the thousand ills that human flesh is heir to;" a remedy, essentially radical, against the world, the flesh and the devil.

Arguing from the experience and practice of stock breeders, he proposes to improve the human race, by the elimination of all either physically, mentally or morally imperfect, by castration.

According to this long-eared philanthropist, convicted criminals, imperfectly developed children, the victims of disease, whether mental or physical, are all to be castrated, in order that the human race may be brought up by means of this process of elimination to the standard of "Homer, Byron, Socrates, Napoleon, Webster, Dickens, Dumas," etc. The author has been somewhat unfortunate in the selection of his models, we think, as some of the generations yet unborn might object to being cultivated up to blindness, lameness, cancer, etc., etc.

The thoughtful reader might like to be informed—the advantages of the system being conceded—by whom it was to be put into, and maintained in, practice. This is only suggested inferentially, on page 17, upon which the author condemns Mr. Peabody for the wrong done to *us*, in giving millions of pounds sterling to paupers, as, therewith being fed, they may "before long out-vote *us*."

We, then, are to be the executioners!

Further, we are told, "It will hardly be expected that (sic) in a preparatory discourse upon this great question, that (sic) a convincing and complete argument could be made. But little more will be attempted, therefore, than the announcement of the positions that will be hereafter maintained.

"1. Like begets like—the good and the bad elements of humanity repeat themselves.

"2. Improvement can only be made by breeding, by careful selection, purity of blood, stock, ancestry, and the philosophy of procreation.

"3. The fountains of mental, moral and physical diseases must be closed; there must be no duplicates of physical, mental or moral incurables in the next generation."

In reference to the first proposition, with a full appreciation of the character of the "Essay" before us, we can only say "'tis true, 'tis pity; and pity 'tis, 'tis true."

The second is scarcely original, except "the philosophy of procreation," which we suppose means an appreciation of the advantages of castration.

It is to be hoped that the author will demonstrate the practicability of his third proposition by a personal application of his system, or accomplish it still more effectually *more Japonico*, by hari-kari. H.

Expert Testimony. By THAD. M. STEVENS, M.D. From the *Indiana Journal of Medicine* for October, 1873.

The objective point of this essay appears to be the appointment of State, or District, Boards of Experts, to testify concerning medico-legal questions, and also to secure their adequate compensation.

We say, appears to be, as the paper is somewhat difficult to comprehend, by reason of the singular obscurity of its style, and the disregard of orthography, etymology and syntax manifested by the writer, who has "*thought* it best to offer some *thoughts*"; who talks of "*Socialogy*," and says that "some notorious *examples* of the incompetency of medical testimony *exists*"; that "the most thorough and conclusive chemical examination could not make *headway* or *dispell* the prejudice engendered by such faulty testimony"; who prescribes "one-fifth or one-fourth gr. of morphine and bromide *potasium*," leaving us somewhat doubtful as to drug and dose—but tells us that "the *results* of the post mortem *was* of great importance." Further, we learn that "there is a certain *tactus erudicus*," etc.; and later, that "it becomes us all to look after this *phrase* of the matter," and "*apropo* of this"—

Since "we must keep in mind the difference between *common* witnesses and experts," we are puzzled about the status of the writer; is he an expert? he certainly is a most uncommon witness.

H.

An Essay on the Principles of Mental Hygiene. By D. A. GORTON, M.D. Philadelphia: J. B. Lippincott & Co. 1873.

Says our author, in his preface, "He who reads the following pages with the attention which the importance of the subject demands, cannot fail to remark the number of quotations introduced from the writings of distinguished savants, past and present. To my mind, that is the best feature of my volume." An honest confession, and certainly true; they constitute not only the best, but by far the *larger* portion of the volume; indeed, without these quotations there would have been left but the cement, serving to join, not unite, the various pieces of this literary mosaic, and possessing about the same relative value thereto as the paste in which they are imbedded to the brilliant mosaics of the Vatican.

In the concluding paragraph of the preface, the author expresses his deep sensibility to "the shortcomings and imperfections of the volume," and also the consciousness "of having done the best I could with the leisure and materials at my command."

In regard to which we must express our conviction that the obligation to publish a book rests upon no man, and least of all when he has neither time nor material for his work.

The body of the volume is divided into six chapters, from which we, following the author's example, will make a few quotations. Referring to the mental influence of physical agents, he says: "An unsightly physical deformity represents so much morbid force spent in the direction of the least harm to the mental character of the individual. A goitre, for example, may, and I believe often does, hold in its cells the condensed essence of a mania," etc., etc. Now, if it be true, as the author has said on the preceding page, that "the phenomena of nature proceed entirely from legitimate antecedents," we fail to appreciate his *morbid force*, and if "an unsightly physical deformity represents so much morbid force spent in the direction of the least harm to the mental character of the individual," how does it happen that all human experience has taught the constant association of idiocy and physical deform-

ity? and where the consistency of the Horatian maxim that adorns his title page—"*Sana mens in corpore sano*"? (a false construction.)

In the fourth chapter, on moral and religious influences, the author tells us, "Long ago, in our youthful days, we 'experienced religion,'" etc., and a little further on he says, "true religion is not in the market, and cannot be bought and sold, bartered for *nor begged* with a *prayer*"; from which we may form some idea of the character of that religion which he "experienced"; in further witness to which hear him—"While, therefore, fear, ignorance and credulity are the foundation of superstition, in its modern acceptation, superstition and theology are the foundation of religion;" probably, of that which he "experienced," minus the theology.

Again, he says, "The Spiritual Head of the Church assured his followers from time to time that the secret of so-called miracle-working was credulity: 'And Jesus said unto them, *Believe* ye that I am able to do this? They said unto him, Yea, Lord. Then touched he their eyes, saying, According to your *faith* be it unto you;' and to the woman who had been ill for twelve years, and who was finally cured by a single touch of his garment, he said: 'Daughter, be of good comfort; thy faith hath made thee whole,' etc., etc. Such is the foundation of the absurd pretensions of all the great religions of the world; witchcraft; fortune-telling; magnetism; medical charlatanry; and also of other curious psychological phenomena, of which the world is so full to-day."

Concerning marriage, the author, quoting Mill—an authority hardly orthodox upon this subject—says, "it is hardly possible for one who is in these bonds to attain exalted virtue," or "to retain it if once acquired." And again, "It would be a very unhappy alternative, to be sure; but personal character of a high order would more than compensate one for the conventional odium of bastardy." To which we can only reply, chacun a son gout. "Bastards, while they are conceived in sin, are generally bred and reared in virtue." How this singular inconsistency occurs we are not informed. But basta! enough! to review the book upon its own merits is difficult, as there is very little of it, and that little has very little merit. The author is evidently a reader, extensive, certainly, but hardly comprehensive, who has served up a sort of literary ragout in which the multiplicity of imported flavors are

scarcely sufficient to disguise the watery decoction of false philosophy, infidelity and blasphemy in which they are suspended.

H.

A Handbook of the Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M.D., B.Sc., M.R.C.P., etc., etc. Philadelphia: Lindsay & Blakiston. 1874.

There will be very few of our readers, we think, who, having read Dr. Roberts' "Handbook," will be willing to spare it for any length of time from their office tables. If there is a book in the whole of medical literature in which so much is said in so few words, it has never come within our reach. So clear, terse and pointed is the style, so accurate the diction, and so varied the matter of this book, that it is almost a dictionary of practical medicine.

We have examined it carefully for defects, and confess that the search was fruitless. We have looked for new remedies, and found all that we sought and more that we wot not of. We have sought for the results of recent investigations, and found that the author had anticipated our search.

Without going into a detailed analysis of the work, we can conscientiously say that we scarcely know one destined to prove of more practical utility to students and general practitioners, whose studies it will greatly facilitate, or to the expert, even, who will find it a most valuable reminder in any department of our art. It is emphatically a book of ideas rather than words, and is moreover intensely practical. After having found it necessary to condemn certain volumes so earnestly, it is exceedingly gratifying to turn to one like this which we can most heartily praise. H.

Mind and Matter; or, Psychological Inquiries, in a series of Essays, intended to illustrate the Mutual Relations of the Physical Organization and the Mental Faculties. By SIR BENJAMIN BRODIE, Bart., D.C.L., Vice-President of the Royal Society. With additional notes by an American Editor. New York: William Wood & Co., 27 Great Jones St. 1873.

The admirable dialogues of Eubulus, Crites and Ergates are so well known to American students through the edition already published by the Messrs. Wood & Co., that criticism seems superfluous.

We are glad, hovever, to welcome this new edition, as it will serve to attract the attention of the younger members of the medical profession to a work which cannot fail to benefit its careful reader. H.

An Introduction to Practical Chemistry. By JNO. E. BOWMAN, F.C.S., Late Professor of Practical Chemistry in Kings College, London. Edited by CHARLES L. BLOXAM, F.C.S., etc., etc. Sixth American, from the sixth and revised English edition. Philadelphia: Henry C. Lea. 1873.

A book which has passed through six editions on each side of the ocean needs no certificate of popularity. One who studies it will perceive that its popularity is based upon its intrinsic merit. Written originally as a text book for the chemistry class of King's College, London, it was adapted especially to the wants of those just entering upon a course of chemical studies, but will be found sufficiently comprehensive to fulfill the requirements of the large majority of general practitioners, whose chemical acquirements rarely extend beyond its limits. It possesses an especial advantage in its small size, the author having been, seemingly, careful to avoid the dilution of his matter, and the expansion of its bulk by useless verbiage, from which it is singularly free. The instructions are clear and explicit, and the illustrations which accompany them well designed and executed. H.

Lectures on Diseases and Injuries of the Ear. Delivered at St. George's Hospital. By W. B. DALBY, F.R.C.S., M.B., Cantab., Aural Surgeon to the Hospital. With twenty-one illustrations. Philadelphia: Lindsay & Blakiston. 1873.

These lectures constitute a useful little manual of some of the diseases and injuries of the ear, more especially of the external and middle ear. The work lacks order, somewhat, the subjects being considered rather from basis of the relative anatomy of the organ. It is scarcely adapted to students, as it takes for granted the possession by the reader of a knowledge of the anatomy and physiology of the ear, as without such knowledge he would be greatly embarrassed in the study of the work.

To practitioners, somewhat familiar with the mechanism and functions of the auditory apparatus, the book will prove serviceable

for reference, the subjects which it comprises being presented clearly and practically, by an author thoroughly familiar therewith. The concluding pages are occupied by a description of the different methods of educating deaf mutes, by "Dactylology," and by "Lip-Reading," which possesses much interest. H.

The Leprous Diseases of the Eye. With six colored plates. By Dr. OLE B. BULL, Member of the Norwegian Medical Society and Private Docent in Ophthalmology at Christiana; and Dr. G. A. HANSEN, Member of the Norwegian Medical Society and Physician to the Leprosy Hospital at Bergen. Christiana: Published by Albert Cammermyer. 1873.

The above treatise possesses much interest for ophthalmologists, if the authors' expressed opinion be correct, "that there is no disease which so frequently gives rise to disorders of the eye, as leprosy does," and by "leprosy" they designate elephantiasis, or lepra tuberculosa, and eleps, or lepra levis. The fact, to which they allude, that the consideration of this class of diseases has been omitted from ophthalmological literature, seems opposed to their opinion.

However this may be regarding the world at large, it is doubtless true in Norway, where leprosy prevails so extensively, as the excellent descriptions of the different forms of the disease, and the thorough familiarity with them, displayed by the authors, could only result from the patient study of a large number of cases, and this would be possible only where the disease was of frequent occurrence. It is quite possible, moreover, that this disease may be imported into our own country, more especially the north-western portions of it, which are becoming the homes of large numbers of Norwegian immigrants, and may become indigenous amongst them.

The style of the work is excellent, and although the translator is not referred to, its linguistic accuracy proves that this portion of the work has been accomplished by one equally expert in English as in Norwegian. H.

BOOKS, PERIODICALS AND PAMPHLETS

RECEIVED SINCE PUBLICATION OF LAST NO.

Philadelphia Medical Times—Dec. 13, 20, 27, 1873.
Medical Record—New York, Dec. 15, 1873.

The Medical Press and Circular—London, Nov. 26, 1873.

The Clinic—Cincinnati, Dec. 20 and 27, 1873.

The London Lancet—Dec., 1873.

The Richmond and Louisville Medical Journal—Dec., 1873.

The Boston Medical and Surgical Journal—Dec., 1873.

The Cincinnati Lancet and Observer—Dec., 1873.

The Medical and Surgical Reporter—Philadelphia, Dec. 13, 20, 27, 1873, and Jan. 3, 1874.

Atlanta Medical and Surgical Journal—Nov. and Dec., 1873.

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ANNOUNCEMENTS.

Geo. P. Putnam's Sons, New York, have in preparation, a translation by Doctors M. D. Mann and S. B. St. John, of a recent work by Professor Ludwig Buhl, of Munich, on Inflammation of the Lungs, Tuberculosis, and Consumption.

Dr. Geo. M. Beard, of New York, proposes to found "a journal devoted to the Special Departments of Electricity, in its relations to Medicine and Diseases of the Nervous System," under the title "Archives of Electrology and Neurology," to be issued semi-annually, commencing early in 1874.

Doctors Jewell and Bannister, of Evanston, announce their intention to issue early in the present year, a quarterly, to be entitled "The Chicago Journal of Nervous and Mental Disease." Its scope is designed to be comprehensive, and its range extensive. It has our best wishes for its success and prosperity.

Messrs. Keen and Cooke have now in press a translation of Dr. Arthius' work, on the Application of Static Electricity to the Treatment of Nervous and Rheumatic Affections, by J. H. Etheridge, Professor of Materia Medica Rush Medical College. The original work possesses much interest, which will in no wise be diminished in its translation by the facile pen of so accomplished a scholar as Prof. Etheridge.

Editorial.

Are Lunatics Criminals?

In the November number of the JOURNAL we took occasion, under the above caption, to call the attention of the County Commissioners to the urgent necessity of providing some suitable place or places for the safe keeping of lunatics pending the adjudication of their status, and previous to their transmission to an asylum by order of the County Court. Attention was directed to the great abuse, at present existing, of subjecting these unfortunate beings to incarceration as felons with felons, surrounded by the degrading and humiliating associations of the police station or the jail.

Another phase of the same subject has just been presented in the report of the Superintendent of the House of Correction and that of the City Physician included therein, published *in extenso* in the *Chicago Times* of January 15th; a thoughtful perusal of which again suggests the question, Are lunatics criminals? The phase of the subject comprehended by the question is a different one from that already presented. In that, we called attention to the outrage done to persons recognized as innocent, and yet treated as criminals, because they were so unfortunate as to be insane; in this, we would indicate that still more unfortunate class recognized as criminals and treated as such, who have helplessly drifted into crime, many of whom would even fulfill the old legal definition of insanity, for they know not right from wrong.

The opportunities for observation of this class, enjoyed by the two gentlemen to whose reports we have already referred, are ample to authorize them to speak *ex cathedra* upon the subject of the necessity which exists for distinguishing these helplessly criminal beings from those who are criminal maliciously. Their crimes are not so much voluntary acts as they are the necessary consequences of the reaction of their vicious surroundings upon organizations already degraded. The City Physician evidently comprehends the subject justly and thoroughly. Would it not be well to enlarge the scope of his duties to such an extent as to constitute him the municipal expert before the Magistrates' Courts,

to aid those functionaries in discriminating correctly between willful criminals and helpless offenders, to the end that a classification might be made in their disposition, and the ends of public justice subserved, without involving a violation of the instincts of humanity or the teachings of philanthropy? The House of Correction might thus become a reformatory instead of a deformatory. H.

The Board of Health.

After having, on various occasions, animadverted upon the delinquencies of this soulless body, we did not expect to find ourselves, at this late day, arrayed among the ranks of its defenders. But in truth, while we can bear to see attacks made upon anything that has life, and the power to kick back, we can only regret the cruelty which abuses the dead. What has the Board of Health done to the new Mayor that he should vent his spite upon it so cruelly? Or, has he been refreshing his recollections of Æsop's fables, and proposes to play Jupiter and the Frogs? If so, give us king Stork, Oh, Jupiter! instead of king Log. H.

The Premonitory Symptoms of Insanity,

Is the title of an article published in the *Cincinnati Lancet and Observer*, of January, 1874, which bore so striking a resemblance to a paper published in this journal, of November, 1873, as to induce us to compare them. The only difference perceptible was a slight one between the name of the author appended to the *Lancet and Observer* article, and that subscribed to the original manuscript in our possession. It is true that there is no copyright in such matters; but still, gratitude, (not to speak of another still more necessary virtue,) demands a recognition of the sources of our benefits. H.

Loot.

Salivation.

Dr. Ebstein reports in the Berliner Wochen Schrift, 1873, No. 25, experiments demonstrating the inhibitory action of atropine upon the chorda tympani nerve, practically applied in arresting salivation, which he believes to be due to irritation of this nerve. —*Practitioner.*

Treatment of Carcinoma Uteri.

The *Practitioner* quotes from Sitz-Berder physic-med. Soc. zu Erlangen, 1873, R. Schroder's alleged successful treatment of this formidable malady by the application of the alcoholic solution of bromine (bromine one, alcohol five parts) to the seat of disease, after having removed all of the disease that was recognizable, (how, is not stated), and subsequently having applied the actual cautery deeply. Two cases of permanent cures are claimed.

Abortion.

Dr. Pallen (St. Louis Med. and Surg. Journal, October, 1873), advises the induction of abortion to relieve excessive vomiting in pregnancy. He has performed it five times, under certain conditions, and *the patients all died.* Such an experience must be a pleasing retrospect in a physician's life.

Gastralgia.

1. Ice bags to epigastrium for ten minutes, morning and evening. 2. Mustard poultice to same locality after ice. 3. Spoonful of shredded ice with sugar, morning and evening, every five minutes for an hour.—M. JONLIN, in La France Medicale.

Surgeon General Barnes.

The French Academy of Medicine has honored itself by electing Surgeon General Barnes a corresponding member by an almost unanimous vote.—*Phila. Med. Times.*

Transactions of the American Medical Association.

The Philadelphia Med. Times terms the "Transactions" the national disgrace. We will not quarrel with our neighbor of the "City of Brotherly Love" about a choice of epithets, but at the same time we must remind him that just as the great Sam. Johnson

was compelled to admit that both Hell and Scotland had their uses, so he must admit that the "Transactions" have their uses too, for which we refer him to his own editorial of Nov. 8th, on "Professional Advertising," and to that of Dec. 13th, on a "Psychological Phenomenon," and exhort him to be charitable.

Skin Grafting—Gonorrheal Orchitis.

Dr. Alfred C. Girard, U. S. A., reports to the Philadelphia Med. Times the complete cure of an indolent ulcer of three inches diameter, within seven days, by the application of three skin grafts, the size of millet seeds, to its surface; a modification of the ulcerative process being perceptible in six hours.

The same surgeon recommends the application of "*elastic bands*," such as are used for stationery, in the place of the adhesive strap ordinarily used in the treatment of gonorrheal orchitis.

Chorea.

Dr. George S. Gerhard reports to the same journal the results of his treatment of thirty cases of chorea. The duration of the disease before treatment varied in different cases from two weeks to fifteen years. In ten cases, the right side alone was choreic; in five cases, the left; in seven, the entire body; in three, the entire body, but chiefly the right side; in two, the entire body, but chiefly the left side; in one, the head, shoulders and face; in one, the head and right arm; in one, both arms, head and neck were involved. Sixteen cases were cured; seven exhibited marked improvement; three were improved, and in four the result was unknown. Of the cures, three were treated with arsenic alone; one with arsenic and zinc; one with arsenic and iron; one with arsenic and purgatives; one with arsenic and chloral; one with arsenic and atropia; one with arsenic, chloral and the cold douche; one with arsenic, iron and bromide of potassium; two with arsenic, sulphate of zinc and the cold douche; one with arsenic, cimicifuga and the cold douche; one with sulphate of zinc; one with zinc and galvanism, and one with gymnastics. There were seven females and five males under ten years of age, and thirteen females and five males under twenty-one years of age. The paper is very interesting, and deserves careful study.

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EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

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Original Communications.

ARTICLE I.—*Infants. Their Food and its Digestion.* By ALEXANDER S. VON MANSFELDE, M.D., Jefferson, Illinois.

"The hand that rocks the cradle, is the hand that rocks the world.

However true this beautiful verse may be, it is outlived by another, which, though less rythmical, is so much the more undisguised by poetical license. "*The hand that nurses the infant, is the hand that digs its grave.*" And if this hand is not directed by a mother's divine love for her offspring, this occupation reaches a climax, the comprehension of which leaves the observer horror-stricken. In the city of Munich, statistics show, that of one hundred deceased infants, eighty-eight did not have the mother as a nurse. Classifying the causes of infantile mortality, we find that a certain amount of *carelessness*, however harsh this may sound, takes the initiative, and out of this the tool is wrought that does the mischief, namely, *entire ignorance of the laws that govern the welfare and the growth of the infant man.* This lack of knowledge is by no means confined to the nurse of the infant, but even

the physician of this enlightened age carries a little of it upon his shoulders, only too often the *offspring of superficiality*, not of learning, perhaps, but begotten by a routine practice.

In the latter part of July I was called to see Blanche, the three months old daughter of Mr. F., of Chicago.

The parents of the patient, quite intelligent people; father's occupation, bookkeeper; of nervo-sanguine temperament, not very strong, but of a bodily composition betokening a close knit frame—in fact, made to endure. The mother a perfect picture of health, well capable of giving birth to healthy children, but more so, qualified to nurse them.

Her confinement was natural and easy; the babe was well developed, and manifested tokens of vigorous life. The mother nursed the child herself the first few weeks after the confinement; but all at once, without failure of health, she lost the use of the breasts. The physician that assisted in her confinement, resorted to all known means to restore the action of the glands, but without avail; the child had to be fed, and as the milk of *one cow* could not be had, and the milk of the milkman was of doubtful composition, *condensed milk* was the *sine qua non* of the physician. This was duly bought by the dozen, and artificial nursing commenced. Everybody was satisfied but the baby. This, having been a good child until now, manifested its inborn badness by restlessness, crying, and all the signs of ill-temper and body. The physician was called, and prescribed for the baby. This manifesto of medical qualification was carried on to such an extent, that we found at the time of our visit, a good selection of all the mixtures that a good pharmaceutist can boast of, and above all, a baby that was taking pepsin and bismuth powders, *one every three hours*, the last prescription of the physician, and this would surely have been the last one, for the child was dying of STARVATION.

Three months old, the child weighed even less than at birth, about seven pounds; the skin hung loosely around the limbs, and had that peculiar cold and wet touch found in the wasting diseases of children. We considered it a case lost; but with a resolution, long since formed, centred in the sentence, "*where there is life, there is hope*," we told the parents we would try our best.

An error surely manifested itself here. Who committed it? What was it?

Not being able to find the cause of the non-secretion of milk, we directed our attention to the food and general nursing of the baby. *The child was not clad warmly enough for its condition.* Every practitioner knows, that in the wasting diseases, *i. e.*, in their decline, the natural heat fails very rapidly, or, better, its production is not proportionate to the wants of the organism; assistance should be procured by artificial heat. This we acted upon at once.

Next we observed (and who has not with us?) that *the child had by no means the solitude and rest that even healthy children always should have.* This is lacking in the first children of our better classes, and is a greater cause of the death of their offspring than most people are aware of. Are they the divine gifts the Creator has laid into the hands of parents for safe keeping? Does the mother try to be the guardian angel of her infant babe? In nine out of ten cases she has not even a thought of her grave charge. Used to play with dolls, until she marries, and tired of her mustached substitute for the same, kind nature loses its wisdom by presenting her with a babe, a living doll! How she enjoys to play with it! But this living doll has one great fault; it is not made of leather. It is soon worn out; the least disorder, and that soon will come, crazes the already surcharged nervous system, and the little one will soon be the victim of its mother's ignorance in this direction. We ordered a cradle for our patient, had it well prepared, and put it, with the baby, into an off-hand bedroom, the air being good in the neighborhood, and had it guarded from all noise of the house and its surroundings as far as possible.

Next, we mistrusted the food the child received—CONDENSED MILK!

Now, with all regard for the pharmaceutical and culinary so-called fancy preparations, we touch them with a certain amount of misgiving. Think of the elixirs! What are they? A nice thing for a physician who does not know how to prescribe, but surely not a good equivalent of medicine for the patient. It is the same with artificial food, and above all, *condensed milk.* We confess our ignorance of its preparation, but that the article in question was not casein 68, fat 38, sugar 30, and salts 6 parts less more or less of its 860 parts of water, we are satisfied. We knew that some of the water had gone, but with it also some of the fat, and to the market, in the shape of butyric acid combined with the

haloid, oxide of lipyl. *It was the absence of fat that caused the trouble in this case, and will cause it again and again.*

At last we eyed the prescription: pepsin and bismuth, a powder every three hours. A good prescription for indigestion, we admit; but the digestion of what? Was it to aid the food to come? The baby received the powders repeatedly upon an empty stomach. This surely was not the intention of the physician, but the mother followed his direction, a powder every three hours, and they did their work. The consequence of a superficiality, caused by routine practice. It was not ignorance, for this member of the profession is well versed in the *science* of medicine.

We saw this same child fed upon warm *cows' milk from the milkman*, lying in its comfortable cradle, warmly dressed and covered, away from the noise of the house and the street, freed from pepsins and bismuth, sleep quietly for several hours, the first time for some days, the mother affirmed, and with its sleep came the angel of health, and brought joy to the parents, life to the little sufferer, and to us a great lesson.

Afterward we resorted to a nurse (wet), and with some degree of care, the child was saved; it weighs now its ten pounds, and is in all respects well.

The natural food of the infant is milk from its mother's breast, the composition of which is, casein 35, fat 25, sugar 48, salts 2, and water 890 parts. (Simon). Upon this the babe rapidly grows, if it be furnished in good quality and quantity. But if the iron hand of fate or the cruel grasp of fashion deny this natural food, an artificial one must take its place, and the best of our craft have united on diluted cows' milk, with the addition of a little sugar, as the best substitute.

This dilution and admixture, to reduce the percentage of the nitrogenized elements, the casein, and render it more suitable for digestion and assimilation. Wells' Chem., p. 488. Now, we dare to assert that neither the first nor the last is true. Because,

1. By the addition of water no dilution of the casein takes place.

2. It is not physiological to give food, of whatever description, in a highly diluted form.

3. The digestion and assimilation of casein is not assisted by the addition of sugar.

4. It is the addition of oil that will make the artificial food a healthy substitute for the mother's milk.

As a revolution in this direction sooner or later must take place, the JOURNAL will kindly furnish us space for the maintenance of the above statements. We may be wanting in revolutionary qualification, but perhaps may be able to make some noise toward scaring things into better times for the infantile world.

There are found in the milk of woman about 35 parts of casein to a thousand; whereas, in that of the cow, no less than 68 parts are contained. (Simon). Now take 100 scruples of fresh cows' milk, about as much as a healthy child takes at a time, and mix this with 100 scruples of water, does this addition lessen the amount of casein in the fluid? It is simply a dilution of all the solid ingredients of the milk. In order to have the child get the benefit of the 100 scruples of milk, it has to be given in a bulk of 200 scruples, rather too much for one meal, and if it is given, it gets all the casein contained in the 100 scruples of milk, and if only half is given, it gets the casein of 50 scruples of milk, but existing in this milk in the ratio of $3\frac{1}{2}$ parts to a hundred, in spite of 50 or 100 scruples of water superadded. *This water separate,* as it exists *out of the body, is separated at once in the stomach, leaving the casein intact.*

As to our second assertion, we are inclined to believe little is necessary to be said. For it is not only known to physiologists that an unnatural dilution of food retards its digestion in the stomach, and as this organ in the human family is by no means created to contain fluids in quantities, these rapidly egress into the intestinal canal, where they are acted upon by the admixture of bile, pancreatic fluid and intestinal juice, to be further prepared for absorption and assimilation; but also the pathologist and practitioner know the dangers which the partaker of food incurs, when protein compounds are not acted upon sufficiently by the gastric juice to insure their absorption by the intestinal gland apparatus. One more reason, and we are satisfied a very tenable one, is the fact, sustained by physical laws, that the larger the dilution of certain bodies, the heavier the resulting precipitate will be, (think of the heavy and light magnesia carbonates); and that the texture of the coagulum is the index to the facility with which this is changed by the gastric juice into peptones. Now,

suppose that we are sustained by the above mentioned scientists, what good does the additional water do, which quickly passes into the intestinal canal? It induces a closer union of the casein molecules, which is already the case in cows' milk, making its digestion more difficult.

In order to do justice to our third assertion, we have to consider the digestion of casein and of sugar.

CASEIN, identical with the *legumin* of the seeds of certain plants, and the *crystallin* of the lens of the eye, having a chemical composition of $C_{40}H_{31}N_{10}O_{12}$, (Mulder), but most likely a conglomerate of different protein bodies, is the nitrogenous principle found in the milk of the mammalia. It undoubtedly takes its origin in the blood, from which it is separated by the glands of the breast; but the exact derivation must be a mystery, until albumen and casein receive their proper places through researches in physiological chemistry. As to the use of casein, no doubt can be entertained. It is the desideratum for the growth of the young animal, which not only derives the pabulum for its soft structures from it, but also the material for its bony frame, through lime salts, which are abundantly present in the casein precipitate.

Milk enters the mouth of the infant at a temperature of bodily warmth (98° Fahr). Here it is mixed with the secretions of the buccal cavity, called saliva. Has this any influence upon the digestion of casein? We say, most positively, no! It may exert a relaxing influence upon albuminoid food, like that of warm water; this is all, and surely not needed, when the highly diluted casein is eaten.

After having entered the stomach, the milk loses its identity, the casein is precipitated from the whey, which latter takes with it the sugar, some of the salts, and traces of oil. By the peristaltic motion of the stomach the coagulum is reduced to a pulpy mass, being at the same time mixed with the gastric juice; *but this division does not take place until the greater part of the whey has found its way into the duodenum.* The rapidity of division is of necessity also regulated by the texture of the precipitate, as above stated. After the solution of the coagulum, it does not present the same chemical character as that of the casein solution, milk. It is not precipitated by acids and metallic oxides, as the latter; it is no more *casein* in solution, but *casein peptone* in solution. The latter

owes its formation either to a catalytic influence of the gastric juice, *i. e.*, its pepsins; that is, it has changed itself, not losing its chemical equivalents, but a different grouping of its atoms has taken place, or it has formed a pepto-casein-salt with the earths that are largely present in casein; the former having been acted upon by the free acid always present shortly after digestion commences in the stomach. Thus prepared, the casein compound slowly enters the intestinal canal, and in this locality its absorption is further facilitated by the action of the intestinal juices upon it, whose power upon it closely resembles that of the gastric secretion.

SUGAR, $C_{12}H_{11}O_{11}$, as it is found in sugar cane; is also contained in fruits, chylariose $C_{12}H_{12}O_{12}$; in milk, as lactine $C_{12}H_{12}O_{12}$; in different species of agaric; in the mountain-ash, as sorbit $C_{12}H_{12}O_{12}$; in the substance of muscle, as pnosit $C_{12}H_{16}O_{16}$; in manna, as mannite $C_{12}H_{14}O_{12}$; in the acorn, as quercit $C_{12}H_{12}O_{10}$; in the protococcus vulgaris, as phycit $C_{14}H_{16}O_{12}$; in the eucalyptus manniferæ, this sugar has the same composition as cane sugar, but with a double grouping of its elements, $C_{24}H_{22}O_{22}$; in the liquorice root, as glycyrrhizin $C_{16}H_{12}O_6$. All these, and several less noticable products of the vegetable kingdom, are classed under the name of glucosides, glucose, or grape sugar $C_{12}H_{14}O_{14}$, being the standard product of the change which they undergo when introduced into the animal organism.

Sugar is not acted upon by the buccal secretions, excepting perhaps some of the more complicated glucosides, but even these can only be changed by long standing, with the saliva at a high temperature; could not, therefore, be acted upon by this medium in the short space of time allotted to their presence in the mouth, since the action of the saliva is positively interfered with by healthy gastric juice. Sugar lies actually inert in the stomach, excepting its solution and transference to the duodenal canal, from whence the fluids regurgitate, as observers have shown, to favor this transmission.

It is the intestinal tract that favors the digestion and absorption of sugar; soon after taking it, it finds its way into the intestinal canal, which it quickly traverses as far as the first half of the large intestine, from whence it is absorbed *in naturam*, or is changed in the small intestine to lactic and in the large intestine to butyric acid; either of which, combining with the alkalies, the salts of which are

found in the secretions of this locality, are also absorbed and carried into the economy to answer their purpose.

But observe, this acidity and chemical change leave a reddened condition of the intestinal membrane, an inflammatory indication, not even noticed, when chloride of sodium is substituted for sugar.

Are we justified to assert, that the addition of sugar to the diluted milk is not only of no help to the digestion and assimilation of casein, or any other protein compound, but is even of harmful tendency, when taken in any quantity above the requirements of the organism?

Who will tell the limits of its healthy or abnormal action? Who, of any practice, has not observed the ill consequences or uncomfortable condition of infants who have been fed with overdoses of sugar, or, what is worse, with candies of unhealthy composition?

Before entering upon the final subject of these lines, we take leave to diverge therefrom, being justified by the preponderance of starchy elements that make up the so-called artificial foods for infants.

WE DECLARE THAT IT IS ILL PRACTICE *to advise or silently permit the use of starch, arrowroot, tapioca, sago, wheat flour, crackers, or any combination of these, into the numberless nuisances called Liebig's food for infants, royal patent food, etc.*

It is a scientific fact that starch, in order to be of benefit to the body of the infant, must be converted into glucose. Now, Dr. Sonsino has proven that starchy food is not digested in infancy, and that there really exists a physiological despepsia for starchy aliments, caused by the inactivity of the humors that concur in the digestive process.

Now, as starch is changed into glucose by the action of the saliva, being interrupted in the stomach, and again powerfully taken up by the pancreatic fluid, which mixes with it in the intestinal canal, and completed by the intestinal juices; and as the saliva, as well as the pancreatic fluid, have little or no power over this material in the first months of infantile life, the changing influence of the intestinal secretions being infinitesimally small; and as *post mortem* examinations have repeatedly shown that this is actually the case, pathologists having found the whole intestinal

canal literally pasted up by starchy food; we cannot but wonder at the audacity with which men of learning dare to endanger the welfare and the life of the little ones intrusted to their care, by being silent upon this subject. If ignorance of mothers is a great cause of infantile mortality, why do not those who know better guide them in the right direction? *Knowledge is only of benefit when it is applied.*

Our fourth assertion, the novelty of which will be admitted, compels us for this reason, and for the sake of the importance of the subject, to be carefully minute. We hope that we will have the indulgence of the reader if we seem to repeat and state facts known to him already.

FAT is the link nature proposed between the inorganic and organic elements that constitute the animal body; it is present wherever life manifests itself, either in the growth of already existing beings, or in the propagation of the same. The radical of this hydrocarbon is called *lipyl* $C_3 H_2$, and the "*haloid base*," according to Berzelius, *oxide of lipyl* $C_3 H_2 O$. This base, combining with the fatty acids, form neutral salts, the fats, which by the addition of oxygen, assume an acid character, and separate into free acids and *glycerine*, the combination of which is 2 ($C_3 H_2 O$) + 4 H O. That is, two equivalents of oxide of lipyl combine with four of water. The acids that most concern us are, margaric acid, $C_{34} H_{33} O_3 HO$; stearic acid, $C_{36} H_{35} O_3 HO$; oleic acid, $C_{36} H_{33} O_3 HO$; and butyric acid, $C_8 H_7 O_3 HO$, (or $C_8 H_8 O_4$).

The combination of these acids with oxide of lipyl form the most of the fats, and the ratio in which these salts combine is the measure of their consistency. The stearate being the most solid, the oleate being fluid, as also is the butyrin.

Mechanically considered, fat is a preserver of animal heat, and a protector of the delicate organs of the body; we only refer to the structures of the orbital cavity, which are, even in the emaciated, yet surrounded by a layer of fat; it also gives shape to the body. Lehmann expresses this very nicely; he says: "Fat is the cosmetique employed by nature to stamp the human countenance with the incomparable impress which exalts it far above all the other lower animals."

Fat is not acted upon by the saliva, nor has the gastric juice any influence upon it, except perhaps its separation from protein

bodies. The intestinal canal is nature's workshop, where fat is prepared for absorption. The bile, the first of the intestinal juices it comes in contact with, seems not to exert a great influence upon its digestion; in fact, as it is more an excrement than a secretion, one would be warranted to assert that it had no other than a mechanical influence in the digestion of fat. The pancreatic fluid seems to have the power of emulsifying the fat, and thus by minute division hastening its absorption. This process takes place from the lacteals, favored by the moisture of its delicate membranes by the bile, as it would hardly be admissible that animal tissues, kept moist by aqueous humors, would admit of such filtration. Absorption is also assisted by the small organic muscles of the interior of the villi, by a pressure at intervals exerted by their contraction. But it is also proven that the capillaries of the villi take up small quantities of fat, and carry it directly to the circulation of the portal system, which is always richer in fat after a meal of fatty food.

Chemico-physiologically considered, fat is the fuel, according to Liebig's theory, the burning of which assists largely in the maintenance of bodily temperature. The heat of the body is, under different atmospheric degrees of warmths, almost stationary, excepting perhaps the young animal, in which the normal temperature is higher than in the adult, and which (what is very remarkable) is not capable of maintaining the equilibrium of warmth, as is the adult. A small child rapidly loses its normal degree of heat when under the influence of cold.

One reason more why young children should be carefully guarded against changes of temperature.

Examining the physiological role that fat plays, we quote Lehmann, Physiological Chemistry, vol. 1, page 236:

"I was long since led from theoretical grounds to regard the fat as one of the most active agents in the metamorphosis of animal matter, and this subjective conviction has since been converted into objective proof by numerous experiments and observations. After having found by experiments, regarding the fermentation of milk, that the process cannot be excited by albuminous bodies in saccharine or amylaceous fluids, *excepting with the co-operation of fat*, I next ascertained *that a certain, although small, quantity of*

fat was indispensable to the metamorphosis and solution of nitrogenous articles of food during the process of gastric digestion."

"When we consider all the facts," continues Lehmann, on page 239, "we shall be almost involuntarily led to the conclusion that fat takes a highly important share in the most important, and at the same time the most mysterious, processes in the formation of cells and tissues. We cannot believe that fat is a mere incidental agent in all these processes; but we must rather regard it as of essential aid in the process of converting nitrogenous nutrient substances into cells and masses of fibres, in like manner as it co-operates in the processes of lactic fermentation and digestion; and it is probable that whenever a chemical equation, presenting the formation and function of certain cells, can be established, fat will constitute one of the integral factors. Indeed, it is impossible to believe, that in the vital activity of cellular action, fat should be without influence on the metamorphosis of the substances which it accompanies, and that, without reference to them, it should obey only its own affinities toward oxygen or an alkali."

In pathology we meet with fatty degeneration of the muscles, the glands, the liver and the kidneys, in either case followed by the most disastrous consequences. Here we also cite the fatty infiltration, taking place when fat is absorbed in quantities above the wants of the body, or the natural ratio is not used for the formation of bile, etc., caused by disease of the liver and other organs.

The lipomata, which favor the places where infiltration takes place, (excrescentiæ membranæ adiposæ of Margagni), are the consequences of like causes. In all carcinomatous growths, fat plays a great role, for the quicker the generation of the cancer cells, the larger the amount of fat present.

Or is perhaps the generation of these cells the consequence of an increased amount of fat, favoring the rapid development of compound nucleoli, or nuclei, into cells? How is it that cancerous growths always take their origin at the site of union of two distinctly different cell forms?

If the fat could be abstracted, would the growth of the cancer be interrupted, or altogether checked?

And just as the presence of fat favors new formation, so does its absence retard the same; we refer here to tuberculous deposits.

It is known, that in this pathological condition, it being retrogressive, the blood is poorer in fat than in any other diseased state.

Thus having traced the influences brought to bear on fat, and also its changes, and the alterations produced by the same under various circumstances, we are prepared to prove our assertion, *that it is fat which favors the digestion of albuminoid food, especially fibrine, in the food of the young.* It is a demonstrated fact that veal and lean pork are most difficult of digestion. Every housewife is aware of it, and who, in this country, has not had the experience that when these meats are prepared with a certain amount of fat, they, though yet heavy food, are well borne by the stomach, which otherwise would manifest its protest by discomfort, better felt than described?

Elsaesser has demonstrated that the milk of women is more easily digested because its fibrin-coagulate is of a more spongy character than that of cows' milk, which forms not only a denser coagulum, but the whole is of a more clotted texture.

If this physical condition is the cause, what then in the two milks is it that makes this difference? and is there anything in science that will alleviate the obstacle which prevents cows' milk being a good substitute for mother's milk?

Is it a lessened per centage of water in cows' milk that gives rise to the difference? The difference in thousand parts is from 10 to 20 only; why then advocate the addition of 990 parts of water? We cannot see the scientific deduction that lies in this admixture.

Is it the addition of sugar to cows' milk, that makes this similar to the natural food of infants? We have seen that this carbohydrogen compound has no influence at all upon the digestion of the protein bodies, nor is it acted upon by the secretions of the alimentary canal forcibly enough to warrant the conjecture, that by decomposition it may exert some influence upon stomach digestion.

It is the difference of fat contained in the respective milks. The milk of the cow holds 10.5 parts less fat than that of the human female, when compared with the casein found in them.

We instituted the following experiments:

1. We took 7½ drachms of fresh cows' milk, and added a half drachm of white vinegar, shaking the fluid before and after the mixture.

2. We mixed 7½ drachms of the same milk with twenty drops of sweet almond oil; then we added a half drachm of the same vinegar, shaking the compound well.

3. We added to three and three-fourth drachms of the same milk as much water, mixing it well with the former; then we added a half drachm of the same vinegar again, shaking it well.

The fluids were contained in two oz. prescription vials, white glass, at a temperature of 65°. We noted the following consequences:

In No. 1 the casein slowly separated from the whey, *and settled upon the bottom of the vial*, the precipitation being not quite complete.

In No. 3 we observed small granules of precipitated casein, smaller and compacter than those in No. 1, but the fluid retained its milky appearance.

In No. 2 the casein precipitated completely, *i. e.*, as far as we could observe from the physical appearance of the vial contents, but the *coagulum was decidedly more flocky, and, what is very remarkable, it floated upon the clear whey.*

To be sure that no unforseen interference caused this difference, we repeated the experiment with Nos. 1 and 2; taking, this time, three ounces of fresh milk, and one ounce of the same vinegar, adding to No. 2 one drachm of sweet oil of almonds, with positively the same consequences. The only difference, perhaps, being a more distinct separation of the casein in No. 1, owing to the increased amount of vinegar added. In No. 1 the whey was above the precipitate, and in No. 2 it was below the coagulum.

In both experiments there was a separation of two distinct precipitates, one floating upon the whey, and the other settling on the bottom of the vial, this phenomenon being observed only in the mixture that contained the oil, and so fixed is this separation, that after repeated shaking the same division would take place.

The result of these experiments, though expected, demonstrated to us the fact that the looser coagulum of woman's milk is formed by the greater amount of fat in it (compared with the per centage of casein), and that this physical condition can be artificially produced by the addition of one scruple of oil of sweet almonds or cod-liver oil to every two ounces of cows' milk. It is proven that the presence of fat is necessary for the digestion of protein bodies;

it is known that a larger amount will facilitate this process (of course not in a quantity above normal requirements.) We took a half drachm of pepsin, added to it one and one-half ounces of water and acidulated the mixture with twenty drops of muriatic acid; after some time we added of the clear fluid, avoiding the white precipitate on the bottom of the bottle, one-half ounce to each vial of our first series of experiments, and find, twenty-four hours after the admixture, in a temperature of sixty-eight degrees, half of the precipitate in No. 2 redissolved, whereas it is hardly attacked in No. 3 and but little in No. 1, proving that even out of the body the above statement is true.

Elsaesser has demonstrated the fact that the easier digestion of the fibrine in woman's milk is caused by the gelatinous, light texture of its coagulum; and

We think we have ascertained *that it is the larger amount of fat mixed with the fibrine in woman's milk, that causes the spongy consistence of the coagulate, and*

WE JUSTLY CLAIM, THAT THE ADMIXTURE OF FAT WITH COWS' MILK WILL MAKE THIS THE BEST ARTIFICIAL FOOD FOR INFANTS.

Should our deductions not meet with the entire approval of the profession at large, of which we have no sanguine expectation, we nevertheless earnestly hope that this article will help to shake the positively untrue opinion, that cows' milk will be a good substitute for mothers' milk when diluted with water and with the addition of sugar.

We think experience has amply proven how watery this water-doctrine is, and we exclaim, with the great Lehmann,

"Spring must yet come."

Will the friends of progress be kind enough and give this formula of ours a fair trial, by instructing the nurses and mothers of infants, not only as to the manner of its use, but explain to them also its mode of action, capacitating them, as much as possible, to nurse their children understandingly; for then, and only then, will

"The hand that rocks the cradle, be the hand that rocks the world."

ARTICLE II.—*Postural Treatment for Extensive Distension of the Intestines with Gas.* By CHAS. T. PARKES, M.D., Chicago.

I am led to record the following cases more for the purpose of having the treatment therein adopted subjected to extensive trial, than from any supposition that they present any unusual phases, or that they are sufficient to establish the infallibility of such treatment. During the winter of 1871 I unfortunately had quite a number of cases of labor, complicated with puerperal metritis and metro-peritonitis. Among the most distressing and uncomfortable conditions incident to these puerperal affections, is that of extensive distension of the intestines with gas—in a word, tympanitis. In the attempt to relieve this troublesome complication, I subjected my patients to a fair trial of the medicines ordinarily supposed to be of avail in such conditions, but cannot say that much, if any, relief rewarded the trial.

I resorted also to the introduction of the largest sized bougies into the large intestines, and in one case obtained some slight escape of the retained gas, but was not favorably impressed with its use, neither was the patient. My attention was called to what I have termed the "postural treatment," in this way: While in the dissecting room, I had noticed for some time back that bodies in which the intestines were filled with gas, were always relieved of it by placing them face downwards, flexing the thighs on the body, and allowing the weight of the body to fall upon the distended abdomen, the gas invariably escaping per anum, provided the lower bowel was in part or entirely empty.

Might not the result be similar in the living body? I had an opportunity to make the application soon, in the following cases:

Mrs. P——, in labor with her tenth child—shoulder presentation—delivered by turning—placenta did not come away as usual, found it adherent, and removed it by manual interference. On the 5th day after delivery, Mrs. P—— presented all the symptoms of well-marked metro-peritonitis. In a few days the abdomen was swollen out to its fullest capacity by gaseous accumulations, the patient suffering unutterable distress—painful dyspnœa—troublesome hiccough.

The following treatment was adopted, and with immediate relief:

A large enema was given, and the lower bowel fully emptied; then the patient was turned with her face downwards, the weight of the body falling on the distended abdomen, the thighs flexed upon the abdomen, and the patient directed to make straining efforts. These efforts were soon followed by the escape of an enormous amount of gas. The relief was so great as well as grateful to the patient, that she could not be induced to resume the dorsal decubitus until the abdomen had reached almost its normal level. She resorted to the same plan for relief whenever the distension became uncomfortable, and was always satisfactorily rewarded. The case terminated favorably.

Mrs. McL——. Second pregnancy—labor normal. On the 7th day after confinement, metro-peritonitis was fully developed, accompanied with great distension of the abdomen. Tried the usual methods adopted to get rid of the accumulation of gas, and failed; resorted to the "postural treatment," as in first case, and it was followed by complete and rapid subsidence of the distension, and entire relief to the accompanying annoying distress. The patient made a good recovery.

Mrs. M——. Sixth pregnancy; separation of the placenta during last weeks of pregnancy with excessive hemorrhage; membranes ruptured and delivery hastened; gave birth shortly to a healthy but bloodless child; mother greatly exsanguinated. On the fifth day, well-marked metro-peritonitis manifested itself, followed by swollen abdomen. The "postural treatment" resorted to for the relief of the latter condition, with a complete and satisfactory result. The patient passed quietly along into her usual good health.

REMARKS. The cases speak for themselves. The number is not great, but the fact, that even three successive cases were so immediately and successfully relieved of such a disagreeable complication by the adoption of this method of treatment, argues quite strongly in favor of a more general trial. Even if only occasional cases can be benefited in this manner, such harmless treatment should be widely known. Of course intestinal distension by gas in any disease can be easily managed, if the "postural treatment" suggested proves equally as prompt and effectual in its relief when tried by others, as it has been for me in the cases above mentioned.

ARTICLE III.—*Labor, Puerperal Fever, and Death.* By GEO. J. MONROE, M.D., Leland, Ill.

Mrs. Catharine Apt; German; aged 20; primapara; taken in labor December 22d, 1873. Mrs. Apt was very fleshy; adipose tissue abundant. When pregnant about two months she met with a fall, fracturing the leg in the lower third. After recovering from this injury she was pretty well for the balance of the time of her pregnancy, with the exception of persistent constipation, frequently going five or six days without an evacuation of the bowels; still, no great inconvenience resulted therefrom.

At about six o'clock P. M., December 22d, while at the supper table, the membranes ruptured without any premonitory symptoms, allowing the liquor amnii to escape. After the escape of the waters a severe hemorrhage commenced. Her husband got her to bed as soon as he could, called in a neighboring woman, and sent for me as speedily as possible.

I got there about half past eight, having seven miles to go. She was still flowing profusely; the blood had saturated two quilts, two woolen skirts, one woolen shirt, and a piece of rag carpet; still, she did not seem to be much prostrated. I at once gave her two teaspoonfuls of Tilden's fluid extract of ergota; made a digital examination; found the womb soft and flabby; os dilated so I could introduce two fingers; head presentation. As yet she had had no pains. In about fifteen minutes after administering the ergota the hemorrhage ceased, and did not again appear to any amount until after the expulsion of the child. She had no pain during the night or next day until about six P. M., at which time labor pains commenced, and went on naturally until about three A. M. of the 24th, when she was delivered of a puny, feeble girl. The cord was twenty-two inches long, and about the size of fence wire. I have never seen so small a cord during my practice of thirteen years. After the child was born, and on making slight traction on the cord, it at once separated from the placenta—something that never happened with me before. I waited one hour for the expulsion of the after-birth, but it did not come; neither was there the slightest indication of pain. Gave two teaspoonfuls of ergota fluid extract. Waited one half hour—still no pain. Intro-

duced my hand to deliver placenta; on reaching the os, I found it so much contracted that it required some effort to introduce the index finger. Made forcible dilatation, and reached the placenta, which was high up in the uterus; had to use my fingers to detach a portion of it from the womb; finally succeeded in delivering it.

After the removal of the placenta there was but little flowing; the womb seemed to contract naturally. After remaining about one hour, everything being apparently right, and the lady very comfortable, I left.

She remained comfortable until about six P. M., Wednesday evening, when all at once she was taken with severe uterine pains; several large coagula of blood were expelled.

I was sent for. On my arrival at 9 P. M. I found her suffering as much as she had at any time during her labor. On examination found no coagula in the womb; uterus very hot to the feel, and unusually dry. Gave opii in full doses to control the pain, and ordered castor oil to move the bowels.

Was sent for early Thursday morning. Pain still continued; no movement of the bowels; pulse 140; profuse perspiration. Puerperal fever, well marked. Gave morph. sulphas, gr. j, every three hours; ordered calomel, gr. xv, to be followed in three hours by castor oil, oz. ss., spirits turpentine, gtts. xxx; this to be followed in ten hours, if no operation, by injections of warm water.

Eight P. M. Thursday: abdomen tympanitic; bowels had moved two or three times; pain less severe; no sleep; pulse 140. Continue morphine, with quinine, gr. ij, with each powder. Turpentine over bowels. Egg-nog and beef tea.

Friday morning I found that she had vomited a great deal during the night. Pain severe; lochia had ceased; bowels had moved twice; great tympanitis; considerable flatulence; urinates freely; some hiccough; pulse 130. Ordered gr. j sulph. morph. every hour until rest was obtained. Nourishment and stimulants if the stomach will retain them.

Friday evening: had rested a good deal during the day; pulse 145; had taken some nourishment. Continue morphine sufficiently often to control pain; quinine, nourishment and stimulants; warm application over abdomen.

Saturday morning: had slept some during the night; bowels had moved twice; pulse 140, very feeble; hiccough produced by

any movement; wanted beer. Continue treatment; give beer in limited quantities.

Sunday morning: stomach rejects everything taken; hiccough almost continually; eyes very much injected; some difficulty in vision—in trying to reach a raveling on the bed, fell short about an inch with each effort. Death imminent. Use morphine and quinine dissolved in beef tea, by injections per rectum. Purulent and very offensive discharges from vagina. Ordered injections of warm water and carbolic acid per vaginam.

Monday morning: eyes more injected; rested some during the night; had taken a good deal of beer; pulse rapid and very feeble; respiration labored; tympanitis great; feet cold and clammy; anxious expression; contracted features; mind clear; abdomen purple. Continue injections.

On my arrival Tuesday morning at 10 A. M. she had just breathed her last. Did not rest any during the night; suffered a great deal of pain; vomiting and hiccough all night. Retained her senses until the last moment.

The questions that arise in my mind, are the following: What was the cause of the hemorrhage before labor? had the fall in the early stages of pregnancy anything to do with it? Why was the cord so unusually small? why did it separate so easily from the placenta? Might not the remaining quiet during the treatment of the fractured leg have produced the persistent constipation? Is puerperal fever any more apt to occur where we have hemorrhage than when we do not?

I attended four other ladies during the same week; no unusual symptoms present in either of the cases; convalescence natural in all.

ARTICLE IV.—*A Case of Dislocation of the Ulna backward, without Displacement of the Radius.* Reported by NORMAN BRIDGE, M.D., Chicago.

J. S., a German of medium height and slight build, and twenty-five years old, was thrown from his wagon July 27th, 1873, and received an injury of his left elbow.

He was seen by the writer within twenty minutes after the accident. There was an apparent projection backward, of the olecra-

non; the arm was held at right angles; the hand was in the supine position, and bent laterally toward the ulnar side, as in the position assumed on dressing with the pistol splint. There was no abrasion externally, or apparent contusion.

On examination, the ulna was found dislocated backward, the radius not being displaced. No other abnormality could be made out.

Under the influence of ether the dislocation was reduced, very little force being required to replace the bones, and a distinct sound being produced as the joint surfaces struck together. A light dressing was applied for protection, and the arm placed in a sling.

There was for a few days considerable swelling and heat, for which water dressings were applied. In a week the man began to use the arm, and in a month very little effect of the injury remained. The contour of the joint was perfect on recovery.

In view of the exceeding infrequency of this accident, and the difficulty of its production without fracture of the coronoid process of the ulna, it may be questioned whether in this case such a complication did not exist.

I am only sure there was no crepitation on manipulating the elbow after the displacement was reduced; nor was there any other indication that to me positively suggested a fracture.

That there was extensive rupture of the ligaments, if no fracture existed, may be presumed from the ease with which reduction was accomplished. At the time the case was examined no considerable swelling had taken place, and the position of the head of the radius, the condylis of the humerus and the olecranon, were distinctly demonstrated.

Progress in Medical Sciences.

ARTICLE I.—*Report on Gynæcology.* By A. REEVES JACKSON, M.D., Lecturer on Gynæcology, Rush Medical College.

1. Anticipation of Post-Partum Hemorrhage. DR. EWING WHITTLE. (*British Medical Journal*, Sept. 27, 1873. *American Journal of the Med. Sci.*, January, 1874.)

2. On the Systematic Examination of the Abdomen, with a view to Rectifying Malpositions of the Fœtus during Labor. By ARTHUR EDIS, M.D. (*Med. Times and Gazette*, Jan. 11. *Half-Yearly Abs. of the Medical Sciences*, July, 1873.)

3. Fetal Physical Diagnosis. DR. HUNTER. (*The American Practitioner*, Dec., 1873. *Obstetrical Journal of Great Britain and Ireland, American Supplement*, Dec., 1873.)

4. Hydrate of Chloral in Puerperal Convulsions. By ALEXANDER MILNE, M.D. (*Transactions of the Edinburgh Obstetrical Society*, 1872.)

5. Hydrate of Chloral and Bleeding in Puerperal Convulsions. By P. J. ROEBUCK, M.D. (*American Journal of the Medical Sciences*, Jan., 1874.)

6. New Operation for Contraction of the Vaginal Orifice of the Neck of the Uterus. By DR. V. SABOYA. (*Revista Medico Rio de Janeiro*, Aug. 10, 1873. *American Journal of Medical Sciences*, January, 1874.)

7. Clinical Lectures on Diseases of Females. By T. GALLARD. Paris, 1873.

1. Dr. Whittle states that post-partum hemorrhage may be diagnosed in advance, and being diagnosed, may be prevented. He says that hemorrhage may be expected when the pains during parturition are "strong and quick; they do not gradually culminate into a strong pain and subside again, but they are sharp, quick, and cease almost suddenly; and the intervals between the pains are long in proportion to the length of the pains." In normal labor, for one or two hours before its completion, the length of the pains is about one-third of that of the interval; that is, if the pains last from fifty to sixty seconds each, the intervals will average about three minutes, or a little less. Now, according to Dr. Whittle, if the pains have the sharp, quick character described, and last only from forty to fifty seconds, with intervals of five or six minutes, hemorrhage will be sure to occur after the delivery is completed,

even though the labor may proceed steadily, and the head advance with every pain. The explanation is this: the uterus contracts sharply, and then becomes fully relaxed; after the delivery, a relaxation follows; one or two sharp pains expel the placenta with a gush of blood, and the uterus is again relaxed, the same tendency continuing which existed before the birth of the child.

The means used and recommended by Dr. W. for the prevention of the flooding, consist in altering the character of the pains—making them longer and the intervals shorter, thus causing them to approximate those of natural labor. This is effected by the use of ergot. Dr. W. gives, so soon as the os is dilated, a full dose of the drug, and if this does not produce the desired effect at the end of an hour, he repeats it. "In dealing with primiparæ, caution is required, first, not to administer ergot until the soft parts are pretty well dilated, as well as the os uteri; and the drug should be administered in much smaller doses, as it sometimes acts with unusual energy in primiparæ. Generally, in about twenty minutes or half an hour after the ergot has been administered, the pains increase in length and frequency, and when the labor is over, the uterus maintains a good contraction."

2. Dr. Edis advocates the systematic examination of the abdomen either prior to, or during the early stage of labor, with a view to rectifying malpositions of the fœtus by external manipulation. Dr. Edis expressed the belief that the universal adoption of this expedient would tend materially to diminish the large mortality which occurs from accidents of childbirth. The process of external version was described as very simple. With the patient on her back, and the knees drawn up, a little experience will soon enable the practitioner to detect the position of the fœtus; and by turning the patient on her side, and making pressure and counter-pressure on the head and breech, the correction of any abnormal position may be readily accomplished. Every physician should consider it his duty to examine carefully the position of the fœtus in utero on first visiting his patient in labor. The diagnosis of the fœtal position can be made out before the membranes are ruptured, and version can be performed even before labor begins. Version by this method can be made during labor with much less danger to the mother and the child than is possible by any other mode.

Dr. Barnes states that a head presentation is the type of a natural labor, and it follows that to obtain a head presentation is the great end to be accomplished by art. By external manipulation, cephalic version can be performed as readily as either podalic or pelvic version. The advantages of this method can be at once appreciated where interference at a very early stage of labor may be desirable, as in cases of placenta prævia, accidental hemorrhage, and convulsions.

3. Dr. Hunter gives the history of three cases in which cephalic version was performed by external manipulation before the rupture of the membranes. In two of these cases the malposition was shoulder presentation.

Dr. Hunter concludes that in cases where the malposition is rectified prior to labor, "it is necessary to re-examine the case at intervals to see that the fœtus does not resume its old position, this being the more imperative during the first part of labor. I believe firmly that were every case examined prior to the rupture of the membranes, the abnormal presentation recognized, and the proper measures instituted, there would be no necessity for the record of an unnatural labor."

4. Dr. Milne reports a case of a woman in labor with her fourth child, who, as the labor was progressing normally towards conclusion, was frightened by the noise of a falling body, and went into a convulsion. The child was born, but the fits still continued at short intervals. Sixty grains of hydrate of chloral were given, and in about fifty minutes the eclampsia ceased, and the patient fell into a heavy sleep which lasted eight hours. She awakened confused, but free from headache or sickness, and made a good recovery.

5. Dr. Roebuck's case is one of a woman twenty-two years of age, who was advanced eight and a half months in her first pregnancy, and who, without any premonitory symptoms, was attacked with violent convulsions. Sixteen ounces of blood were taken after the third fit, and a half grain of sulphate of morphia administered; vomiting soon followed; pulse eighty per minute. The bleeding was repeated in three hours, and another half grain of morphia given. Vomiting again followed, and there was slight

abatement of the spasms; pulse eighty. At the end of five hours after the onset of the attack, the patient was entirely unconscious, the convulsions returning every twenty or thirty minutes, and lasting from ten to fifteen minutes. Pulse still eighty, and the pupils fixed.

Although the vagina was well lubricated and flaccid, there was no dilatation of the os uteri, no evidence of uterine contractions, and the patient was not considered in labor.

An attempt was made to give thirty grains of hydrate of chloral, but the dysphagia was so great that only a fractional part of the dose could be given. Seventy grains were then given by the rectum, effectually arresting the convulsions, and producing unconsciousness. The pulse rose to 120 in one hour, when labor pains commenced. A living child was born fourteen hours afterwards. Consciousness did not return until ten hours later, when she for the first time realized that she was a mother.

6. Dr. Saboya states that having found by experience that incisions of the neck of the womb, whether made with the bistoury, the scissors, or the hysterotome, even when followed by the sponge tent, had a tendency to subsequent contraction, he was induced to modify the operation as follows:

A tubular needle armed with a metallic thread, was passed into the cervix uteri one-fifth of an inch from its orifice, and made to emerge at an equal distance on the other side. The wire being then pushed through the needle, its extremity was seized with nippers and held while the needle was withdrawn. A loop was then formed on each extremity of the wire at a distance of about two inches from the cervix. The nippers were then passed into the cervical canal, the middle of the wire seized and drawn down and cut in two. Each of the cut ends of the wire was then passed through the loop of the corresponding side, and slightly twisted. The wires were allowed to remain one month, being twisted a little every eight days. At the end of that time the wires had produced fistulous tracts, the sides of which had no disposition to unite; they were now removed, and the remaining tissues were cut at the same time with a long narrow bistoury guided by a director.

The operation thus described was performed upon two patients, with complete success. A sufficiently patulous os uteri was secured

by an almost bloodless operation, and the extremities of the incisions being covered by mucous membrane, had no tendency to become adherent or to contract.

7. Dr. Gallard says, "that while Marion Sims advises washing the hands *before* making an examination, it is thought best in Paris to wash them *afterwards*." Both are right. The hands should be washed both before and after.

ARTICLE II.—*Progress of Surgery.* By JNO. E. OWENS, M.D., Lecturer on Surgery, Rush Medical College, Chicago.

1. *The Treatment of Joint Affections by Massage.* Arranged by W. R. FISHER, M.D., after oral translations from the Danish by GEO. R. CUTTER, M.D. (*Medical Record*, New York, Jan. 1, 1874.)

2. *A Successful Case of Abdominal Section for Intussusception.* With remarks on this and other methods of treatment. By JONATHAN HUTCHINSON, F.R.C.S. (*The Medical Press and Circular*, London, Nov. 26, 1873.)

3. *Remarks on Certain Recent Papers on the Action of Alcohol.** By DR. ANSTIE. (*The Practitioner*, London, December, 1873.)

1. We make the following extract from Dr. Fisher's paper:

The word massage (Gr. μάσσω: to knead) has been adopted by the Danish writers from the French, and signifies the use of such passive manipulations as rubbing, kneading, percussing, and rolling of the soft parts. Some of the authors extend its meaning so as to include passive movements of the joints; while others restrict it to manipulations which can be given with the fingers, and use the term effleurage to designate hand-rubbing. The reader may understand the word massage, whenever it occurs in this paper, to mean passive manipulations with the fingers or hand; when movements of the joints are spoken of, the term passive movement will be employed. The attention of the profession in Denmark has been especially directed towards the subject of massage by the widespreading reputation of Dr. Mezger, a Dutch physician now

* This paper is arranged under the heading Progress of Surgery, in consequence of the bearing which such experiments have upon the treatment of pyæmia, septicæmia and erysipelas.—O.

practicing at Bonn, who has recently achieved an increased celebrity by a successful employment of this means in the treatment of the Danish Crown-Prince. The papers (of which Dr. Fisher's article is a translation) all relate to Mezger's method, as it is called; and since the reputation of this physician is deeply dependent upon his success in the treatment of joint affections, although he extends his method to a variety of other complaints, this abstract is confined to the consideration of that class of diseases. It should be borne in mind that the American method of treating joint inflammations by extension and counter-extension, without preventing locomotion, is rarely used anywhere in Europe, and in Denmark and the Scandinavian countries has probably scarcely been heard of; so that the objections which are hereafter, in the course of this paper, to be made against "the usual methods of treatment," should be understood to refer, for the most part, to the use of counter-irritants and the plaster of Paris bandage.

Dr. Mezger employs massage in treating both acute and chronic synovitis in the articulations of the extremities. In the case of the hip-joint, however, he does not use it; partly on account of the deep situation and anatomical relations of this articulation, and partly from the fact that its inflammation often depends upon primary osteitis. He divides his frictions into two classes: the first, passing from side to side, (horizontal); the second, passing from below upwards in the line of the limb, (vertical friction). The applications vary in force according to the effect which he desires to produce, and are made, not only upon the joint itself, but also upon the adjacent unaffected tissues. By means of the horizontal frictions the skin is moved about over the fasciæ and ligaments, and the superficial vessels are acted upon, partly by the direct application of mechanical force, and partly by the indirect influence of the vaso-motor nerves. The circulation of the blood is thereby increased; and where there is a tendency to venous stagnation, the bluish color is removed, and the skin assumes its natural appearance. The vertical frictions are made in the direction of the circulation of fluid in the venous and lymphatic vessels, and promote the flow within them. By a combination of these two methods of manipulation -the one stimulating the action, and the other propelling the contents of the blood vessels and lymphatics— absorption is necessarily increased. Still farther, where there are

deposits or effusions of blood in the soft parts, the use of frictions may bring about slight changes in these portions, and tend to disperse them, by breaking them up and rendering them more readily absorbable. Massage, therefore, is a powerful agent in producing the absorption of effused materials; acting both by preparing them for removal, and also by promoting the proper functions of the lymphatic vessels. Compression will likewise promote absorption, by the lymphate, but it acts upon the subcutaneous veins, and gives rise to œdema of the parts below the points of application; whereas by the use of massage, not only is there no obstruction offered to the venous flow, but, on the contrary, the circulation is greatly promoted. For these reasons massage can be used with great confidence in the treatment of synovitis. In acute and chronic synovitis, the vertical frictions are more applicable than the horizontal. According to Mezger, the average time which is required for the treatment of an acute synovitis by this method is two weeks, and for a chronic case six weeks. The hyperplastic forms of synovitis require a somewhat more complicated treatment. (All cases which have advanced to suppuration are excluded.) Both the horizontal and vertical frictions are to be employed, and usually strong pressure is required, especially over those points where the peri-synovial tissue is felt to be much thickened. The more acute the inflammatory process the softer should be the pressure, as a general rule. Synovitis-hyperplastica presents a hyperplasia of the anolar tissue in the synovial membrane and the peri-synovial tissues, together with a more or less plentiful serous exudation. At the same time there is a development of newly formed vessels. Usually a more protracted course of treatment becomes necessary. Dr. Mezger recommends to his patients, both in acute and chronic cases, a moderate use of the affected joint, to an extent which is limited by the production of pain; passive movements are also used by him at the same time. Dr. Mezger's chief merit consists in the fact that he has separated massage from the system of therapeutic gymnastics of which it forms a part, and that he has studied its effects upon diseases more thoroughly and completely than has ever been or could have been done while it remained in the position of accessory to other treatment. Mezger has elevated massage to the dignity of chief therapeutic means in

his treatment of joint affections, and passive movements assume with him a secondary importance.

At a meeting of the Medical Society of Copenhagen, September, 1872, Dr. P. Winge made some practical remarks upon Mezger's method. He describes it briefly as consisting essentially in kneading, rolling, percussing, and rubbing the parts which are the subject of treatment. The operator sits in front of his patient on a low stool, and begins by oiling the part with perfumed lard. He rubs strongly whenever indurations, infiltrations or effusions are to be dealt with, and follows from below upwards the course of the lymphatic vessels in the extremities. When the knee-joint is the subject of treatment, he works across the joint with the fingers of one hand, on both sides, below the patella, pressing inwards with more or less force; while the fingers of the other hand work in the same manner upwards along both sides of the patella, over the capsular ligament, or any ligament which is felt to be swollen. This process is continued from three to five minutes. He then grasps the joint with the right hand, pressing firmly, rubs upwards over the patella, as high as the superior insertion of the investing ligaments. The applications are repeated once or twice every day.

2. The patient was a child aged two years. The intussusception had commenced at the cæcum, and was of such length that its extremity, presenting the inverted ilio-cæcal valve, was extruded several inches at the child's anus. The condition had been one month in the course of development; latterly the case had been treated as one of prolapsus, and attempts had been made to keep the bowel in place by means of a cork pad. The child was very ill, and the author having failed in attempts to effect reduction by enemata, etc., and having had experience of several similar cases which had ended fatally, determined to operate. The child was put under chloroform, and the abdomen was opened in the middle line below the umbilicus. The intussusception was then easily found, and as easily reduced. The after treatment consisted only in the administration of a few mild opiates, and the child made a rapid recovery. The author next narrated briefly the particulars of those somewhat similar cases in which he had been consulted, and in which the intussuscepted bowel could be easily felt by the finger in the rectum. In all these, in spite of persevering treat-

ment by injections, bougies, etc., the patients had died unrelieved. From a consideration of cases, the following conclusions were suggested:

1. That it is by no means very uncommon for intussusception to begin at the ilio-cæcal valve, and to progress to such a length that the invaginated part is within reach from the anal orifice, or even extruded.

2. That it is of great importance in all suspected intussusception to examine carefully by the anus.

3. That in almost all cases of intussusception in children, and probably in most of those in adults, the diagnosis may be made certain by handling the invaginated part through the abdominal wall.

4. That in a large proportion of the cases in which children under one year are the patients, death must be expected in from one to four or six days from the commencement.

5. That in fatal cases death is usually caused by shock, or by collapse from irritation, and not by peritonitis.

6. That in many cases it is easy, by estimating the severity of the symptoms (vomiting, constipation, etc.), to form an opinion as to whether the intestine is strangulated, or simply irreducible.

7. That in cases of strangulated intussusception, whilst there is great risk of speedy death, there is also some hope that gangrene may be produced, and spontaneous cure result.

8. That in cases in which the intussuscepted part is incarcerated and not strangulated, there is very little hope of the occurrence of gangrene, and it is probable that the patient will, after some weeks or months, die, worn out by irritation and pain.

9. That the chances of successful treatment, whether by the use of bougies, or by the injection of air or water, are exceedingly small, excepting in quite recent cases, and that if the surgeon does not succeed by them promptly, it is not likely that he will succeed at all.

10. That the cases best suited for operation are those which have persisted for some considerable time, and in which the intestine is only incarcerated; and that these cases are also precisely those least likely to be relieved by any other method.

11. That in cases just referred to, after failing by injections, bougies, etc., an operation is to be strongly recommended.

12. That the records of post mortems justify the belief that in a considerable number of the cases referred to, the surgeon will encounter no material difficulty after opening the abdomen.

13. That the circumstances which might cause difficulty, are—(1) the tightness of the impaction of the parts; (2) the existence of adhesions; and (3) the presence of gangrene.

14. That in selecting cases suitable for operation, the surgeon should be guided by the severity of the symptoms to an estimate of the tightness of the strangulation, and as to the probability of gangrene having already set in.

15. That in cases in which the patient's symptoms are very severe, or the stage greatly advanced, it may be wiser to decline the operation, and trust to the use of opiates.

16. That the operation is best performed by an incision in the median line below the umbilicus.

17. That in cases of intussusception in young infants, under one year of age, the diagnosis is very desperate.

18. That the last fact mentioned may be held to justify, in the case of young infants, very early resort to the operation.

3. The influence of alcohol in reducing temperature is a fact so contrary to preconceived ideas, that until within the last few years it was never even suspected. The attention of Professor Binz was drawn to the subject while he was still unaware of the researches of Ringer and Rickards; and at his instigation M. Curry Bouvier made a series of experiments, in the laboratory at Bonn, with very decided results. On healthy men and on animals, alcohol in moderate doses produced a small, and in large doses a considerable, reduction of heat. Moreover, a dog which had been thrown into a pyrexial state by the injection of pus into the subcutaneous tissue, had its abnormal temperature markedly reduced by considerable doses (each about one drachm absolute alcohol with water); the lowering amounted to more than two degrees in all. The alcohol was then discontinued, the temperature rapidly rose again, and went on rising till death. At a recent meeting of the British Association, Professor Binz, though necessarily in somewhat popular style, laid down, as the definite result of recent experiments, that alcohol always reduces temperature, but that the effect was most readily perceptible in feverish persons, in whom bodily heat was much above the normal line.

I cannot help remarking here (says the author of this paper), on the singular and even grotesque course which English popular medical opinion has taken on this question of alcohol in pyrexia, since the death of Todd. His observations, which were doubtless inexact (for medical thermometry did not in his time exist), have been declaimed against in every variety of tone; but the special reproach against them has always been that they were "not truly scientific." Loud as this outcry has been, I am not aware that (before Ringer and Rickards) a single English medical observer (one or two of Todd's pupils excepted) had ever put to the simple test of the thermometer, Todd's main allegation—that alcohol reduces febrile temperature by its direct action. That very portion of Todd's practice which has excited the fiercest condemnation in this country, viz., his administration of very large doses of alcohol in conditions of high pyrexia, turns out to agree best with the results of physiological investigation, and has in practice been endorsed by such eminent physicians as Liebermeister, Binz, Socin, and many others. The Franco-German war gave abundant occasion for testing this matter; and it was fortunate that Professor Binz received a high medical military post, and that such men as Socin and others, who also filled important medical posts in the war, were willing to carry out his plans with vigor. Those who are acquainted, either personally or through his writings, with Professor Socin (Basle), are aware that a more accomplished observer is not to be found in Europe; it need, therefore, hardly be said that his war experiences of the treatment of pyæmia, erysipelas, etc., possess an uncommonly high value. It is therefore a matter of much importance that we find him stating that in the severe septicæmic wound-fevers he not only employed quinine in enormous daily quantity (20 to 105 grains), but at the same time gave three bottles of wine every day. Under this treatment he saw many unexpected improvements, and even recoveries; and he declares that the wine not only increased the lowering effect of the quinine on the temperature, but that it also much moderated the toxic effects; *i. e.*, the "cinchonine." Erysipelas was also a disease that came very largely under Socin's observations at Carlsruhe, and he speaks here in a different manner. He specially remarks that quinine had but little or no effect in reducing temperature, and all remedies appear to have been unavailing to reduce

the temperature very markedly. Nevertheless, the patients supported the high temperature particularly well, and he attributes this, at least in part, to the administration of three to four bottles daily, of champagne and sherry mixed. The researches of Binz have gone far to prove that the cooling influence of alcohol is not exerted through the heat-regulating centres. In his papers in Virchow's Archiv. (1870) will be found the record of experiments in which the possible interference of such a course was elaborately provided against. And the general result of the inquiries is to reinforce more strongly than any other researches have done for a long time, the opinion that alcohol, while itself oxidized within the blood with great rapidity, hinders the oxidation of the tissues. Hence it can be easily understood that the effect of alcohol in reducing temperature would be most plainly seen in the febrile diseases, when the tissues are being violently consumed, while the supplies of ordinary nutriment are necessarily very small. Such, in fact, proves to be the case, and Dr. Binz has recently informed me (last August) that whereas in smaller doses, *e. g.*, one ounce of wine in half an ounce of brandy, it is usually not possible to obtain a reduction of more than a few decimal parts of a degree, and the dose must be frequently renewed to maintain the effect, he has found that the influence of a very large dose has sufficed to produce a reduction amounting to several degrees. Whether this be, on the whole, the best method of reducing pyrexia by means of alcohol, is a question which will be found more fully investigated in my new researches, which will shortly be published.*

* My own experience in the use of very large doses of alcohol, in the treatment of pyæmia and septicæmic fever, leads me to attribute the unexpected improvements and occasional recoveries more to an antidotal power of the agent than to its influence in reducing temperature. The patients die from poisoned blood, and not from high temperature. Can it be that the reduction of the temperature is only a measure of this antidotal quality of the alcohol?—O.

Selections.

Parasitic Origin of Disease. From Report on Hygiene, by E. A. PARKES, M.D., in British Army Medical Report for 1871, published April, 1873.

The origin of diseases from entozoa, or from low forms of life, fungoid or bacteroid, is so important a subject that it seems necessary to give a brief retrospect of what has been done this year. The progress of observations seem to make it clear that the true fungi must be separated from the class called schizomycetes by Nægeli and DeBary, which includes the bacteria and allied forms. The true fungi produce, for the most part, very obvious diseases, which are situated on the surface of the body or in cavities easily accessible to the air. The schizomycetes appear in all parts of the body, and have been found in the interior of living cells, and may be thus transported everywhere.

DISEASES IN MEN PRODUCED BY ENTOZOA.

Filaria sanguinis hominis.

The most remarkable discovery of the year is that of Dr. T. Lewis, Assistant Surgeon Army Medical Department in Calcutta. He had discovered, some years ago, in the urine of persons affected with chyluria, the young of a small worm belonging to the filaridæ, and he has now found that this worm exists in immense quantities in the blood, and emerges through the kidneys, and occasionally through other channels, as in one case by means of a discharge from the inner canthus of the eye.

The worms are easily detected in the blood, and exist there in great numbers without apparently causing any marked symptoms except those arising from their passage into the urine.

Another parasite has been also discovered by an army medical officer, Dr. Welch. A soldier from India died of phthisis five days after landing at Netley. In the jejunum, immediately beneath the mucous coat, was an oral prominence like a rice grain; this was found to be caused by a parasite .13– inch in length, and .053– inch in thickness. There was a chitinous investing membrane, and at one end a retractile proboscis with a number of hooklets; there was no mouth or intestines, and no distinct segmentation. This is the first time a representative of the acanthocephala has been discovered in the human body, though echinorhynchus are common in birds and fishes. In this man it produced no symptoms.

Dr. Wising, of Stockholm, describes a case of balantidium coli. A man became affected with diarrhea, and passed thin, pea-soup-

like stools. Under the microscope there were remains of food, lymphoid cells, blood, and large numbers of small white worms, which were found to be the balantidium coli described by Malmsten in 1856.

BILHARZIA HEMATOBIA.

Dr. Cattell, of the 10th Hussars, who served for five years in Natal, informs me that the endemic hematuria is almost confined to boys in the Dutch town of Maritzburg; girls do not suffer, and adults only slightly. The drinking water at Maritzburg is taken from open water-courses running along each street, which is often fouled by animals drinking, by ducks, and by surface washings. The boys play in this water, and no doubt drink it in the hot weather. During a residence there of five years, Dr. Cattell had no case among the soldiers' children. The drinking water for the troops is taken from a separate water-course, higher up than that of the town's supply. Dr. Cattell is impressed with the opinion that the drinking water is the source of introduction.

FUNGOID ORIGIN OF DISEASE.

No great advances have been made in this division of the subject. Tilbury Fox has described and figured* the spores and mycelium of the tricophyton tonsuraus in dust deposited from the air of schools in which ring-worm is prevailing. He figures also the epithelium, with apparently the spores of the fungus in or on it.

BACTEROID ORIGIN OF DISEASE.

Before noticing the diseases which have been attributed to bacteria, during the last year, it may be interesting to notice two papers by Oscar Grimm, of St. Petersburg,† and also to extract a few passages from a work by Dr. Eidam.

Grimm first discusses the significance of the terms vibrio, bacterium, spirillum, etc., and then gives a statement of the effect of reagents on vibriones. Strong sulphuric and hydrochloric acids dissolve vibriones; weak solutions act slowly; acetic acid dissolves them very slowly; chloride of ammonium kills them, and then dissolves them; creosote makes the organisms clearer, and the vacuole is then clearly seen; iodine colors them brown; carmine, red; alcohol and ether slowly dissolve them. All the tests show that they are formed of a substance like protoplasm; they are indifferent to the electric current. Grimm describes their movements and their still conditions very carefully. Like other observers, he was not at first able to see the clearage of vibrios, but he at last succeeded in doing so, in both vibrios and spirillum; and he also observed a very interesting phenomenon, viz., the conjugation, or union, of the one-jointed vibriones and their fusion into a two-jointed

* Lancet, January 6, 1872.

† Archif fur Mikroscop Anatomie, B. viii and ix.

link; and subsequently the union of other vibriones, so as to form a many-jointed rod. This union or copulation has been seen in the bacteria of the splenic apoplexy, and in the spirillum undula. He therefore remarks that the single joint is the individual and not the chain of rods. With respect to the origin of the splenic apoplexy, or carbuncular (milz-brand) bacteria, Grimm believes that they are developed out of the protoplasm of the white blood cells. He asks the question, are the germs of the vibriones then present in these blood corpuscles? If so, they are so minute as to be undiscoverable. He considers the spirillum volutans to be only the union of two samples of spirillum undula. So also bacterium enchelys can form long chains, and produce vibrio rugala, or vibrio bacillus. These two last named vibrios are distinguished only by the size of the joints. He has seen all intermediate forms between vibrio lineola and vibrio subsilis. In fact, he doubts whether any distinction can be drawn between the different kinds of vibrios, and he recognizes, indeed, only two forms, viz., spirillum and vibrio. He includes under the term vibrio, the genera vibrio and bacterium of Ehrenberg. He describes, however, a new form, which, if it is really a vibrio, would constitute a third genus.

He has satisfied himself that the vibriones need atmospheric air as nutriment, and also that they are nourished by the absorption of fluid. He has seen them attack spores and acquire a green color, while the contents of the spores were much lessened in amount. He has seen the vibrios take on in the same way a red color from a red fluid which they fed on; and when the nourishment was colorless, the vibrios were also without color.

With regard to the systematic place of the vibriones, he is inclined to put them by the side of the phycochromaceæ, which resemble the vibriones in structure, in their increase through simple division, in their movements, and lastly, in their formation of colonies, with separation of a gelatinous mass.

Some single oscillarineæ, however, resemble vibriones so much that they are distinguished with difficulty. Although there is this resemblance, there is no identity. He agrees with Cohn, that "the "phycochromaceæ may well have been the first organisms on the "earth, as they can only grow in hot, strongly saturated saline "solutions. I think that these organisms, whose joints may be "considered either plants or animals, divide into two branches, "from which the formation of the animal and vegetable characters "takes its rise."

The second author, Dr. Eidam, analyzes with great care the micrococcus theory of Hallier, and his doctrines of infectious diseases; and then passes in review the objections taken by DeBary and Hoffman to Hallier's assertions, and states also the views of Karsten and Bonorden on fungoid development. He sums up his own conclusions in terms as follows: Very important differences of opinion now exist among mycologists. Bonorden denies all

alternation of generation among fungi; DeBary takes a middle course on this point; and Hallier makes the greatest possible use of metamorphoses, and his theory is indeed otherwise impossible. In no other natural science are the differences of opinion greater than in mycology. As regards the infectious diseases, it is extremely probable (ausser ordeutlich wahrscheinlich) that they are caused by fungi or similar bodies.

If it could be decidedly made out that the plasma of spores and mycelium disintegrated in order to form micrococci, and if these little granules could increase, and under favorable circumstances go on to new plants, the present cell theory would be greatly changed. The micrococcus theory has one support; the spores of peronospora, cystopus, etc., divide their contents into globular balls, which individualize themselves more and more, in order finally to take the form of swarms, which burst the spore-coats, and these swarms can bud and develop. If in these spores of large size there is such a division of plasma, and a further development of parts so arising, cannot something similar occur in other spores? The difficulties of experimenting are immense. In cultivating the products of disease, only fresh and bacteria-free substances must be used; blood taken (with all precautions) direct from the body is the best. Nevertheless, in almost every sample of healthy blood, there are many little corpuscles with dancing movements, which it is impossible to distinguish from micrococci. Eidam proceeds to point out the other great sources of fallacy in cultivation experiments, and finally concludes that the micrococcus theory has almost everything against it. It may indeed be questioned, he says, if, on account of their excessive minuteness, these objects can be dealt with with our present instruments, and if it is possible at present to close this controversy. Perhaps even our whole mode of investigation may be wrong, and renewed investigation is certainly indispensable.

It will be seen, then, that the impression made upon an observer of great authority is, that the question is at present impossible of solution, as far as the micrococcus theory is concerned, but on the whole he is adverse to this theory. At the same time he is impressed strongly with the opinion that the infectious diseases are of parasitic origin, and are caused by fungi or some similar growths. In reviewing the observations made during the last year, it will be seen how far fresh evidence has been brought; but the conclusion must still, I think, be that we must yet hesitate before considering that the parasitic theory of infectious diseases has been established.

SPECIFIC DISEASES SUPPOSED TO BE CAUSED BY BACTERIA.

The evidence which has been brought forward during the last year on this subject is interesting in a high degree. As regards cholera, the careful observations of Drs. Lewis and Cunningham, in Calcutta, seem to have disproved the possibility of either fungi

or bacteria being the cause of cholera. In last year's report I gave the evidence of D. D. Cunningham in respect of the discharges, which agreed with that of Lewis on the same point, as showing no such plants as constant constituents. This year both observers have published a joint report on the blood in cholera. When the fresh blood was examined in 128 instances, with very high powers ($\frac{1}{25}$ of Powell, and $\frac{1}{12}$ immersion lens of Ross), no fungoid spores or bacteria, or anything which could be referred to either class, was found; and when the blood was kept, bacteria only appeared in a small number of cases. As far, then, as these fluids (the intestinal discharges and the blood) are concerned, it appears that these high powers failed to detect fungi or bacteria, and that it is in the highest degree improbable that either were present and undetected.

Very different is the case of some other diseases, if the observations of several observers, and especially of Professors Coze and Feltz, of Strasbourg, may be trusted. They assert that in the blood of septicæmia, typhoid fevers and puerperal fever, there is present a linked or chained bacterium, which they term (after Dujardin) *bacterium catenula*, and they believe that the growth of these bacteria is the efficient cause of these diseases; indeed they go further, and assert "that every infectious disease is of bactiferous nature," although the form of the bacteria is different in small-pox, scarlet fever and measles, from what it is in typhoid. The activity and specifity (to coin a word) arise, they conceive, not because they are the carriers of a special soluble principle, but from the rapidity of their multiplication; the form and size of the bacteria depend on the soil in which they are reproduced and multiplied. The various phenomena of the infectious diseases are supposed to be dependent on pathological localization, and these localizations arise from the rapid growth of bacteria; from the detritus formed from them when dead; from the leucocytes which are often simultaneously developed in excess; and from fibrillary deposits of fibrine. The authors attempt to prove these assertions (which, if correct, would largely modify our views of infectious diseases) by microscopic examination, by experiments, and by clinical observations. In their microscopic inquiries they employed Nachet and Verick's glasses (immersion and otherwise), and have worked up to 1,600 diameters, and they used distilled water, the steam of which had passed through a red-hot porcelain tube. The diseases treated of are pyæmia and septicæmia, typhoid fever, small-pox, scarlet fever, measles, and puerperal fever. They also give a chapter on the cultivation of infusoria and on the nature of bacteria. They distinguish between septicæmia and pyæmia, as is now usually done, though the two are often mixed. With respect to septicæmia, the authors showed in 1866 that the blood of animals infected with a poisonous liquid is itself infectious, and that the red globules of the blood are then altered, and a multitude of

bacteria, etc., exist, and that in successive inoculations death ensues more and more rapidly, so that the infectious element seems to gain in activity as it passes through the same organisms. They now support these operations by numerous experiments on rabbits, which are, on the whole, strongly confirmatory of those made by Burdon-Sanderson, and presently to be recorded. Passing over the changes they describe in the red globules, in the white cells and in the fibrine (fibrillary deposits), and referring only to the infusoria, they found always single, double or multiple corpuscles, usually in chains, but looking like little worms. Sometimes they saw the whole element with its grayish or slightly yellowish color; sometimes merely a pale or blackish point (according to the illumination), which was owing to an element seen from above and presenting one end; these points measured .0016 mms.; the complete elements .004 to .02 mms. in length, and .066 mms. in thickness. They had little activity, and resembled bacteria rather than vibriones. They die in the body, and especially in the lungs. The cause of death in septicæmia is considered to be a profound alteration in the blood, tending to, but not usually reaching, putridity, and induced by the countless myriads of bacteridia. In pyæmia there is also often the presence of bacteria, but because there is usually coincident septicæmia, there is in addition or alone numerous embolisms arising from substances introduced mechanically into the circulation (pus, white globules, substances from inflamed veins), and these may exist without any bacteria. The authors thus draw a broad line between the two affections.

In typhoid fever, experiments were made with blood taken from human typhoid patients and injected into the blood of rabbits. An infectious disease (with implication of Peyer's patches) was given to the rabbits, whose blood was able to communicate the disease to other rabbits. The dried and powdered blood of an infected rabbit preserved its power to produce infection for more than a year. In the blood of men and rabbits there were (in addition to alterations in the red and also largely in the white globules), a great number of bacteria, smaller in size than in the septicæmic blood; they were often divided, as in septicæmia, into three, four or five segments (*B. catenula*). The evidence of the presence of bacteria in typhoid blood seems to be complete, but it is, of course, still an open question whether they are the cause of the typhoid fever, and it even appears from some of the *post mortem* histories that bacteria were not always found in the blood. The examinations of typhoid blood during life appear also to have been very few in number.

With regard to small-pox, the observations of Chauveau and Sanderson have proved that the infectious property resides in the solid glistening particles. Whether these glistening particles are bacteroid or not is a matter of dispute. Beale, their discoverer (in

1865), considers* that in vaccine lymph they consist "of a peculiar kind of living matter, the smallest particle of which, when supplied with its proper pabulum, will grow and multiply." Variolous pus contains similar particles, and in both cases they are portions of bioplastic matter. Three years afterward Keber described inconceivably minute organic corpuscles in variolous blood, in which a lively cellular growth took place, and Hallier and Zurn have observed similar particles in the lymph of the sheep-pox as well as in human small-pox. Dr. F. Cohn† has now convinced himself that these particles are "living uni-cellular organisms belonging to the group of the so-called globular or sphere bacteria (*Kugel bacterien*)." He considers that he has absolutely proved this, and he details his method (which is based on that of Burdon-Sanderson), by which be believes he has excluded all chance of foreign admixture. The appearances of vaccine and variolous lymph were identical; there were numerous extraordinarily small globular particles with no proper movement, but with only molecular movement; they were easily overlooked, as their refraction power is the same as that of serum. The immersion lens finds them most easily; their size is under .001 mm., perhaps about one-half or three-fourths of this size; there are some larger bodies which Cohn takes to be clearly cells. At first the molecules are separate, but they hang together like a figure of 8; these double cells increase after a short time, and there may be four or more hanging together and forming chains, and in one or two hours there are chains of eight divisions, and sarcina-like bodies are formed, and then all sorts of groups appear. These bodies Cohn considers to be the same as the micrococci of Hallier, but he does not desire to use this word, which may give rise to misconception, and proposes the name of "microsphœra," as identical with "Kugel-bacteria," and places them, of course, in the family of the schizomycetes. With respect to the question whether these "microsphœræ" are the bearers of the contagion, Cohn alludes to Chauveau's investigations, and considers it is most probable that the question must be answered in the affirmative. The authority of Ferdinand Cohn in a matter of this kind is so great that it would seem we must admit that the sinall points first described by Beale are really bacteria; at the same time, Beale has worked with such high powers, and is so expert in these investigations, that a further inquiry may perhaps still be demanded before Cohn's view is definitely admitted. Coze and Feltz state that they found articulated bacteria in immense quantities in the blood of the human subject attacked with small-pox, and, on injecting this blood into rabbits, they produced feverishness and bacteria similar to those in the variolous blood which were found in the rabbits' blood. In variolous blood

* "Disease Germs," 2d Edition.

† "Virchow's Archiv," Band 55, page 229. 1872.

bacteria, etc., exist, and that in successive inoculations death ensues more and more rapidly, so that the infectious element seems to gain in activity as it passes through the same organisms. They now support these operations by numerous experiments on rabbits, which are, on the whole, strongly confirmatory of those made by Burdon-Sanderson, and presently to be recorded. Passing over the changes they describe in the red globules, in the white cells and in the fibrine (fibrillary deposits), and referring only to the infusoria, they found always single, double or multiple corpuscles, usually in chains, but looking like little worms. Sometimes they saw the whole element with its grayish or slightly yellowish color; sometimes merely a pale or blackish point (according to the illumination), which was owing to an element seen from above and presenting one end; these points measured .0016 mms.; the complete elements .004 to .02 mms. in length, and .066 mms. in thickness. They had little activity, and resembled bacteria rather than vibriones. They die in the body, and especially in the lungs. The cause of death in septicæmia is considered to be a profound alteration in the blood, tending to, but not usually reaching, putridity, and induced by the countless myriads of bacteridia. In pyæmia there is also often the presence of bacteria, but because there is usually coincident septicæmia, there is in addition or alone numerous embolisms arising from substances introduced mechanically into the circulation (pus, white globules, substances from inflamed veins), and these may exist without any bacteria. The authors thus draw a broad line between the two affections.

In typhoid fever, experiments were made with blood taken from human typhoid patients and injected into the blood of rabbits. An infectious disease (with implication of Peyer's patches) was given to the rabbits, whose blood was able to communicate the disease to other rabbits. The dried and powdered blood of an infected rabbit preserved its power to produce infection for more than a year. In the blood of men and rabbits there were (in addition to alterations in the red and also largely in the white globules), a great number of bacteria, smaller in size than in the septicæmic blood; they were often divided, as in septicæmia, into three, four or five segments (*B. catenula*). The evidence of the presence of bacteria in typhoid blood seems to be complete, but it is, of course, still an open question whether they are the cause of the typhoid fever, and it even appears from some of the *post mortem* histories that bacteria were not always found in the blood. The examinations of typhoid blood during life appear also to have been very few in number.

With regard to small-pox, the observations of Chauveau and Sanderson have proved that the infectious property resides in the solid glistening particles. Whether these glistening particles are bacteroid or not is a matter of dispute. Beale, their discoverer (in

1865), considers* that in vaccine lymph they consist "of a peculiar kind of living matter, the smallest particle of which, when supplied with its proper pabulum, will grow and multiply." Variolous pus contains similar particles, and in both cases they are portions of bioplastic matter. Three years afterward Keber described inconceivably minute organic corpuscles in variolous blood, in which a lively cellular growth took place, and Hallier and Zurn have observed similar particles in the lymph of the sheep-pox as well as in human small-pox. Dr. F. Cohn† has now convinced himself that these particles are "living uni-cellular organisms belonging to the group of the so-called globular or sphere bacteria (*Kugel bacterien*)." He considers that he has absolutely proved this, and he details his method (which is based on that of Burdon-Sanderson), by which be believes he has excluded all chance of foreign admixture. The appearances of vaccine and variolous lymph were identical; there were numerous extraordinarily small globular particles with no proper movement, but with only molecular movement; they were easily overlooked, as their refraction power is the same as that of serum. The immersion lens finds them most easily; their size is under .001 mm., perhaps about one-half or three-fourths of this size; there are some larger bodies which Cohn takes to be clearly cells. At first the molecules are separate, but they hang together like a figure of 8; these double cells increase after a short time, and there may be four or more hanging together and forming chains, and in one or two hours there are chains of eight divisions, and sarcina-like bodies are formed, and then all sorts of groups appear. These bodies Cohn considers to be the same as the micrococci of Hallier, but he does not desire to use this word, which may give rise to misconception, and proposes the name of "microsphœra," as identical with "Kugel-bacteria," and places them, of course, in the family of the schizomycetes. With respect to the question whether these "microsphœræ" are the bearers of the contagion, Cohn alludes to Chauveau's investigations, and considers it is most probable that the question must be answered in the affirmative. The authority of Ferdinand Cohn in a matter of this kind is so great that it would seem we must admit that the sinall points first described by Beale are really bacteria; at the same time, Beale has worked with such high powers, and is so expert in these investigations, that a further inquiry may perhaps still be demanded before Cohn's view is definitely admitted. Coze and Feltz state that they found articulated bacteria in immense quantities in the blood of the human subject attacked with small-pox, and, on injecting this blood into rabbits, they produced feverishness and bacteria similar to those in the variolous blood which were found in the rabbits' blood. In variolous blood

* "Disease Germs," 2d Edition.

† "Virchow's Archiv," Band 55, page 229. 1872.

they have also found round globules, armed with points, which they consider to be bacteria fixed to a globule. They also noticed many deposits of fibrine, as in typhoid fever. The kind of bacteria, they state, resembled the *B. bacillus* of Pasteur, and the *B. termo* of Muller, and are quite different in aspect from those of septicæmia and enteric fever, as in septicæmia the transmission of the virus through successive rabbits seemed to heighten the virulence of the poison.

In scarlet fever blood these authors have also found bacteria, which, when transported into the system of rabbits, largely increased in size. In man their length was .0006 mm., and their breadth .0002 mm.; in the rabbit they were eight times as big. The injection of human scarlatinal blood into rabbits produced a fatal, feverish disease.

In measles, extremely small and mobile bacteria were found, but the blood of measles was not toxic to rabbits The authors state that the blood taken from a part of the skin covered with eruptions contains many more bacteridia than the blood taken from the sound part of the skin, and believe, therefore, there is a connection between the eruption and the number of bacteroid elements; in other words, we presume that they mean to affirm a great local development of bacteria in the vessels of the skin.

In the blood of puerperal fever, the authors found (in all infectious diseases) the following changes: deformed red globules, augmentation of leucocytes, fibrillary deposits of fibrine and chains of bacteria, and the same characters were found in the blood of rabbits poisoned with injection of puerperal fever.

The observations of Coze and Feltz on septicæmia are strongly supported by the beautiful experiments of Burdon-Sanderson and Klein, and by the observations of Klebs, of Davaine, and several others. Sanderson and Klein have found bacteria in septicæmic and pyæmic blood, and have also confirmed in another way the curious observations of Coze and Feltz, that by successive inoculations the virus increases in intensity. If a pyæmic fluid is transferred to the peritoneum of a guinea-pig, and is allowed to remain there for a couple of days, and is then introduced into another animal, its toxic power has so increased that it has acquired the most deadly activity. "All such extremely active liquids were crowded with bacteria of a peculiar character, the increased number of which seemed to be in proportion to their toxic properties."

Dr. Sanderson believes that bacteria "afford a *characteristic*, by which we may distinguish the products of infective inflammations from those which are non-infective, and that their number affords an indication of their degree of infectiveness." Dr. Sanderson, however, believes, from actual experiment, that the ordinary bacteria of putrefaction have no toxic action; and he is not prepared, at present, to say that the bacteria of septicæmia are the toxic agents. He regards them as the inhabitants of infective fluids, and as, very probably, carriers of infection.

The work of Klebs, which is based upon observations in Carlsruhe, during the war of 1870-71, is remarkable in various surgical aspects, but in none more than the statements made as to the chief cause of death after wounds. He notices that the differences in the amount and fatality of wound-fevers, and pyæmia and septicæmia, cannot be dependent on the physical condition of the pus, for it is of all kinds of finenesss and coarseness.

A fine microscopic examination has convinced Klebs that the cause of secondary pus formation lies in the presence of "putrefaction fungi" (Faulnisspilzen), which he terms microsporon septicum. He confirms entirely the statements of Recklinghausen and Waldeyer, and, though he does not allude to him, his observations seem confirmatory of Lister's. The method in which it is sought to prove that this parasite is a pus and fever-making cause is two-fold: an anatomical and a physiological. With regard to the first, the microscopic examination showed bacteria, vibriones, and monads in almost all cases of wound secretions. The bacteria are often motionless, rod-like bodies; often joined together, so as to form long jointed fibres; there were, also, numerous microspores, that is, extraordinarily small glistening particles, either free, and then having oscillatory movement, or in groups (zoogloœ-form), or in chaplets. These bodies are found in good as well as in bad pus, but they are sometimes wanting in good pus. These parasites are, Klebs thinks, the same as those described by Huctor and Tommasi in the diphtheritis of fresh wounds.

Commencing in the secretion on the outer surface, the parasites attach themselves to the soft parts, and colonize there, and form zoogloœa-masses, just as they may be artificially grown on the mesentery of the frog.

The colonies extend themselves on all sides, unless they meet with a cleft, which interposes a chasm, or produces mechanical compression, which destroys them. They destroy the surface in this way, and then they penetrate the lymph and blood-vessels, and get to the inner organs. Sometimes they eat through the wall of a vessel, from outer to inner coat, and, getting into the vessel, cause coagulation.

Of the parasite, many penetrate into soft tissues, which they easily destroy, though the hard bones and tendons resist them. They penetrate into the interstices of the loose connective tissues, either directly or are assisted by those forces which aid in moving the lymph. This latter mode is very important. When the parasite passes into the connecting tissue interspaces, the permanent cells are destroyed by the mechanical pressure, but in the spaces are found the wandered white-cells. The parasites pass into these wandering cells (which have come from the wound surfaces apparently, and contain often hæmatoidin), and then are traced into the lymphatic glands. A general infection of the system occurs very slowly in this manner, and the spread of

the parasite-holding cells beyond the lymphatic glands is very difficult to prove. The parasite arrives in the muscles from the connective tissue spaces; then, during the contraction of the muscular fibres, the spaces between them are widened, and neighboring fluids are drawn by aspiration into the spaces. In the succeeding period of muscular relaxation the solid particles in the fluid are not driven out again. Then occurs the well-known interstitial myositis and pus building.

The general infection of the body arises most commonly by the infection of the blood, and the transference to various parts; the little thromboses, which are found behind the valves in the veins, are caused by the adherence of the microspores to the walls; by their colonization and growth there, and by the irritation and pouring out of a fibrino-plastic substance on the walls, a coagulating influence is exerted on the blood, and, perhaps, also the ante-coagulating influence of the walls, pointed out by Brucke, is removed.

These thromboses may remain on, and often form pus. Then the organs suffer; the lungs especially, from the mechanical arrest of numerous solid parts, or sometimes from coagula in the vessels.

Klebs enters at considerable length into the thrombosis and coagulation in the lung vessels in septicæmia, and then passes to the hepatic abscesses, which seldom arise from emboli, but from the distribution of the microspores in the capillary vessels, which are distended, press on the liver cells and destroy them.

Klebs concludes that the opinion which looks upon these parasitic elements as merely unessential and accidental attendants of suppuration and inflammation, must be given up, as complete proof has been obtained that the local mycosis precedes these processes. But, in addition, Drs. Zahn and Tiegel have succeeded in filtering the parasitic masses. The clear fluid caused heavy but transient fever, but never caused local suppurations; the same fluid, containing the parasites, caused extraordinary wide-spread suppurations. Zahn's experiments have, however, been doubted.

Finally, in the splenic apoplexy, or carbuncular diseases, (Milzbrand) of sheep and cattle, in which bacteria were discovered by Brauell, Davaine, and others, it has been asserted by Dr. V. Grimm, of St. Petersburg, that no bacteria were found in the blood during life. But this has been contradicted in a note by Dr. Semmer, of Dorpat, who, not only from his own observations, but from those of Unterberger, in Dorpat, and Nayorski, in St. Petersburg, entirely confirms Brauell's statement of the constancy of the occurrence of these bacteridia in the blood of carbuncular disease.

All of the above noted affections belong to the strongly marked class of infectious diseases; but some observations have also been made on fatal cases, which are allied to these infectious disorders.

NON-SPECIFIC DISEASES ATTRIBUTED TO BACTERIA.

Mycosis endocardii.

Under this term, Professor Winge, of Christiana, described, in 1869, a case of ulcerous endocarditis, in which there were numerous fungoid filaments on the several valves, and in the little embolic masses which were found in the heart. The vegetations were like fibrinous threads, but, under an immersion-lens, their characters came out clearly; there were partitions, and the threads were branched. There was detritus and granular heaps, very similar to bacteria rods, while the threads were like leptothrix-mycelium. The case came on after the man had opened a suppurating corn, with repeated shiverings, followed by severe headaches, diarrhœa, and typhoid-like symptoms.

Another case of a similar kind is now recorded by Professor Heiberg, of Christiana. It was the case of a puerperal woman, who, on the tenth day, had shivering and vomiting, followed by swellings in some joints, and vesicles on the skin of the extremities. She died in about five weeks. On *post-mortem* examination, there was ulcerous endocarditis, and thrombosis of the mitral valve, with fungoid growth. There were metastatic abscesses, metrolympho thrombosis, and lung œdema, and hyperæmia. On a microscopic examination of the cardiac valves, and of the coagulæ adhering to the chordæ tendinæ, there were numerous fine granules, and many rod-like bacteria—similar bodies and leptothrix chains. There was no fibrine, but many white corpuscles in the thrombus masses. The chains and links entirely agreed with those observed in Winge's case. The author gives reasons why in both cases, the plant could not have been a *post-mortem* appearance, but that they were developed *intra vitam.* Detached portions of the vegetation produced emboli. The plant is referred to the schizomycetes (of De Bary), and not to the true fungi.

A sample was transmitted to Virchow, who considers the granules decidedly of parasitic nature, and to be vibrional.

The case is very similar to two described by Virchow, of puerperal ulcerous endocarditis, and in which, also, there were peculiar granules in hyaline connecting masses, and which Virchow identified as parasitic.

DIPHTHERITIC NEPHRITIS CAUSED BY SCHIZOMYCETES.

Dr. Letzwich describes a case of diphtheritis of both tonsils, and swellings in the neck, in a child two and a half years old, which was followed by suppression of the urine, and death. On examination, the venal tubules (straight and contorted), and the malpighian corpuscles, were found crowded with the spores of a fungus; where the fungoid masses were most numerous, the epithelium had disappeared, and the fungi lay close to the basement membrane. The canals were greatly enlarged by their pressure,

and the vessels compressed. If the epithelium still existed, it was crowded with spores, and often enlarged to double its natural size. No fungi were found in the spleen or liver, but they were present in the arteries of the kidneys. The cessation of the urinary secretion was purely mechanical. Although the writer uses the term fungus (pilus), his figures only show small round cells, like spores certainly, but which might possibly be bacteroid.

UTERINE DIPHTHERITIS AND BACTERIA.

Waldeyer describes four cases of puerperal fever, with diphtheritic exudation on the internal surface of the uterus; this layer, and the contents of the lymphatics, the co-existent peritoneal, pleuritic, and pericardiac exudations, were found to contain masses of bacteria between the pus corpuscles and the mortified tissues, and bacteria were found even in the pus corpuscles. The form was the "Kugel-bacteria," of Cohn (already noticed.) While Waldeyer does not lay an extreme weight on these appearances, he considers they cannot be indifferent, and refers to the nephritis diphtheritic of Klebs and Recklinghausen. His observation on the presence of bacteria within pus cells is confirmatory of Beachamp's and Estor's observations, and of Bastian's remark on the presence of bacteria in living cells.

BACTERIA IN THE VESSELS OF THE BRAIN.

In a case of rheumatic fever, which died with an excessively high temperature, Bastian found outside and in the central vessels (surface of convolutions), a large number of actively moving particles. many of these were distinct and large bacteria, made up of "two almost cellular segments." Bastian says these bacteria must have existed in the blood during life, or have been produced in the vessels after death, and before the skull was opened. He inclines to the latter opinion, and states that it influenced him in his views of spontaneous generation. But there are now so many cases of bacteria in the blood during life, that it seems much more probable there was some "foyer" which furnished those found in this rheumatic case.

Reports of Societies.

Chicago Society of Physicians and Surgeons. *Transactions at Meeting of January 26th*, 1874. *Reported by* PLYM. S. HAYES, M.D.

The Society met as usual in the parlor of the Grand Pacific Hotel, the President, Dr. Fisher, in the chair.

Drs. E. Andrews and W. Blanchard were elected to membership.

The Secretary read a paper written by the President, Dr. Fisher, on the Progress of Medicine. The paper reviewed the advances made in medical science to the present time, and compared the slow progress of this science before the commencement of the nineteenth century with its rapid advance since that time.

Dr. C. P. Simon reported the case of a young man who had taken about dr. iij. of tr. opium. When discovered, three hours before the doctor was summoned, the body was motionless and pulseless. When the doctor arrived he found the extremities cyanosed and cold; the neck and lower jaw rigid, the pupils dilated, and the iris brilliant and phosphorescent. No pulse could be detected, and there were no respirations. Upon applying his ear to the chest, the doctor thought he was able to detect feeble pulsations, which averaged thirty to the minute. Ten minutes after his arrival the pulsations had entirely ceased.

Dr. Etheridge then related the following case of opium poisoning. When he first saw the patient, there were twelve stertorous respirations and forty-eight pulsations to the minute. After a time the respirations ceased entirely for about eighty seconds, after which they were resumed with an audible sound, and then the respirations which were quiet and normal, gradually grew more and more shallow and stertorous until they again ceased. The periods of cessation varied from fifty to one hundred seconds; while those of respiration continued to take place from eight to ten minutes. During the cessation there was a tremor of the intercostal muscles. The restorative means used were, the stomach pump, and atropia, given by the mouth. Half an hour after the atropia had been given, the pupils gradually dilated until death occurred, eight hours after the doctor had been called.

Dr. Trimble cited two similar cases in which atropia and artificial respiration had been used; in one of the cases faradization had also been employed; both recovered.

Dr. Wilder related the case of a man who took tr. opium, oz. ij. Although emetics, belladonna, artificial respiration and friction were used, the patient died. The pupils dilated after the belladonna had been given.

Dr. Bartlett mentioned a case of poisoning from a belladonna plaster which had been applied for threatened mammary abscess. The patient was taking morphine all of the time. He also gave the case of a child who had taken tr. opium, dr. j. He was called soon after the drug had been taken, and not having a stomach pump at hand, introduced a catheter in place of the tube of the pump, filled the stomach with water and then reversed the child, when the contents of the stomach escaped.

Dr. Etheridge stated that larger doses of opium and belladonna could be borne when given together than when given separately; the toxic effect of the one neutralizing that of the other; and cited Dr. Brown-Sequard as authority.

Dr. Powell remarked, that he used after an operation one-half gr. of morphia and one-sixtieth gr. of atropia hypodermically; the action of the morphia being thus continued much longer than when given alone.

Dr. Trimble introduced a resolution requiring the President to appoint a committee of three on necrology at each annual meeting.

Dr. Danforth is expected to read at the next meeting, a paper on the pathology of the late cholera epidemic, illustrated by means of a solar microscope.

The society then adjourned.

Meeting of Feb. 9, 1874.

The Society met as usual in the parlor of the Grand Pacific Hotel; the President, Dr. Fisher, in the chair. Drs. J. H. Hollister and W. T. Montgomery were unanimously elected to membership.

Dr. Hyde read the following communication:

CHICAGO, Ill., Feb. 9, 1874.

Dear Sir—I have the pleasure of presenting to the Chicago Society of Physicians and Surgeons, in behalf of Assistant Surgeon John S. Billings, U. S. A., the librarian, the accompanying two volumes of the catalogue of the library of the Surgeon General's Office, U. S. Army.

Very respectfully, W. C. SPENCER,
Surgeon U. S. Army.

Dr. J. N. HYDE, Sec. Chicago Society of Physicians and Surgeons.

A vote of thanks was tendered to the Surgeon General.

Dr. Danforth's report on the Pathology of Endemic Cholera, was read by Dr. Bridge. The report mainly consisted of the history, necroscopy, and microscopical examination of two cases of patients that died in the cholera hospital last summer. Dr. Danforth explained the sections of normal and pathological intestines, which he had prepared. These were projected on the screen by means of a solar microscope. The instrument used was one of Browning's spectroscopic lanterns, with microscopic attachment. The lantern had been recently presented to Rush Medical College by Mr. A. C. Thomas, and kindly loaned to the Society by the college.

A vote of thanks was given to Dr. Danforth for the paper and exhibition of microscopical illustrations.

The following resolution was adopted:

Resolved, That the report be given to the Secretary for publication in some medical journal.

As the hour was late, the discussion of the paper was made the business of the next meeting.

The meeting then adjourned.

☞ Reports of meetings of the Central Illinois Medical Society, which have been placed in type, have been unavoidably crowded out of this No., but will appear next month.—EDS. JOURNAL.

Editors' Book Table.

NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

Dunglison's Medical Dictionary. A new edition, enlarged and thoroughly revised, by RICHARD J. DUNGLISON, M.D. Philadelphia: Henry C. Lea. 1874.

Dunglison's Medical Dictionary has been a source of national pride to American physicians during the lifetime of the majority of those now in the profession. It has been no small boast to be able to claim, as our own, one of the best, if not the very best work of the kind which has ever appeared in any language. It might almost be termed an encyclopædia of medical sciences. It would be entirely superfluous to attempt a criticism of what has been the *vade mecum* of our professional lives, and is a familiar friend to all. We shall, therefore, only say to those who have found the old editions indispensable, that this only can still less be spared from the study table. The additions made by the Editor of the present edition, in order to keep up with the recent advances in medical and collateral sciences—more than six thousand words—one hundred and sixty pages—constitute, in themselves, a lexicon of no mean proportions nor feeble merit.

Dr. Dunglison could not have chosen a field of labor more prolific in fruit, more universally beneficial in its results, and more honorable to himself, than the reconstruction and elaboration of this monument of the genius, the industry, and the scholarship of his distinguished father. H.

Sphygmograph: its Physiological and Pathological Indications. The Essay, to which was awarded the Stevens' Triennial Prize by the College of Physicians and Surgeons, New York, April, 1873 Two hundred and ninety illustrations. By EDGAR HOLDEN, A.M., M.D. Philadelphia: Lindsay & Blakiston. 1874.

The invention of the sphygmograph by Marey attracted the general attention of physiologists, both in America and in Europe; for to it all looked as to the agency by whose means the pathological significance of changes in the circulatory system were to be unfolded, and its practical application was expected by many to

initiate a new era in physical diagnosis. That the instrument has failed to fulfill these expectations has been for a long time apparent, and it is gratifying to recognize in Dr. Holden's Essay an effort to explain the reason why, and to demonstrate that "the question of real moment does not relate to the practical utility of any given sphygmograph, nor yet of the sphygmograph in its best known signification, but to whether there is any deep meaning in the blood current of the accessible arteries of value in physiology, pathology, or therapeutics, which may be accurately ascertained and recorded."

Convinced that the unsatisfactory results hitherto attained through the instrumentality of the sphygmograph were due to erroneous modes of construction, Dr. Holden directed his attention to the accomplishment of such modifications in the mechanism of the instrument as should obviate the causes of previous ill success. Perceiving that the instrument hitherto constructed was capable of utilizing the *lifting* power of the artery only, he attempted to construct a new one, which should be capable of utilizing the *displacing* power of the artery likewise. That this power of displacement is much more readily recognizable in its manifestations than the lifting power alone, is shown by the increased amount of pressure applicable to the artery by Holden's than by Marey's, Austin's, or Sanderson's instrument, viz., 700 to 1100 instead of 100 to 200 grammes respectively. The author claims for his instrument the advantages of ready applicability, and a diminution of two-thirds in its cost.

The chapter on arterial tension will repay careful study—in view of the prevailing obscurity and indefiniteness in the application of the term by practical writers—and in it the great importance of a correct appreciation of this condition in its relations to "the equilibrium of pressure, so essential to health," is rendered apparent.

The Essay epitomizes the results of several thousand sphygmographic tracings taken from cases of disease, more especially of some portion of the circulatory, respiratory, or nervous mechanism. The observations bear the impress of good faith, and of a desire to exhibit, honestly and fairly, the capacity of the instruments as a means of diagnosis, and not to uphold any pet theory.

Dr. Holden has, moreover, not limited the scope of his observa-

tions to the analysis of pathological conditions alone, but has extended them to experiments upon the determination of the effects of certain drugs upon his own person. Cannabis indica, gelseminum, aconite, and quinine, were administered experimentally, and their effects upon the circulation carefully measured by the sphygmograph, the collateral effects upon the nervous system being noted coincidently.

Dr. Holden's Essay is entitled to more than ordinary perusal; it deserves special study. Should it meet with the consideration it deserves, it will have initiated a new era in the history of the sphygmograph, which may culminate in its utilization as a means of diagnosis to a degree as yet inconceivable.

The style of the work is polished and elegant, proclaiming its author not only an earnest worker, but an accomplished scholar.

The typographical excellencies of the book entitle Messrs. Lindsay & Blakiston to the sincere thanks of all students, whose *res angustæ domi* compel them to use the day for labor and the night for study. H.

The Anatomists' Vade Mecum. A System of Human Anatomy. By ERASMUS WILSON, F.R.S. Edited by GEORGE BUCHANAN, A.M., M.D., Surgeon and Lecturer on Clinical Surgery, at the Glasgow Royal Infirmary, Professor of Anatomy in Anderson's University, assisted by HENRY E. CLARK, M.R.C.S. Ninth edition. Philadelphia: Lindsay & Blakiston. 1873.

Criticism of a work which has reached its ninth edition would be attempted too late, were one able to find an excuse therefor in this excellent treatise. A casual inspection of the book presents much that is attractive, and a more careful examination confirms and strengthens these favorable impressions. Its small size is a great advantage, contrasting favorably with the imposing dimensions of many of the volumes which have recently issued from the press, and which are indebted for their dimensions as much to padding as to their essential matter. The condensation of such a vast amount of valuable matter into so small a compass, is not only evidence of the admirably terse and concise style of the language, but likewise a great boon to students forced to realize so constantly that "life is short and art is long."

The different subdivisions of the subject matter have been carefully revised, and the contents brought down, or rather up, to the

state of anatomical knowledge at date; they are more than usually complete. This may be especially said of the chapters on the nervous system, and of those upon the organs of special sensation. In the former we should have been glad to see a variation, which a due regard to physiology seems by this time to demand, in the phraseology by which a nerve trunk is described; thus, for example, instead of "the ophthalmic nerve arises from the upper part of the Gasserian ganglion," etc., etc., describe it as terminating there after arising from various points of origin, at which it receives impressions to be transmitted to the brain. The closer the association of anatomy and physiology in our text books, the more rapid will be our progress in the acquisition of that accurate knowledge of both, upon which alone rational medicine may rest.

The work is profusely illustrated, and the wood cuts are good, many of them, and those of the best, new. Taken altogether, it is the most attractive, and will prove to be the most useful manual of special anatomy accessible to the English speaking student.

H.

A Handbook of Medical and Surgical Reference. By JNO. A. WYETH, M.D., Member of the New York Pathological Society, etc., etc. New York: William Wood & Co., 27 Great Jones street. 1873.

A little book, which cannot fail to be very useful under the circumstances for which the author designed it, liable, however, to the objection which may be urged against all works of similar character, *i. e.*, the encouragement of indolence and routinism. This objection, indeed, the author deprecates, in advance, in his preface.

Although the suggestions in the work are all taken from standard authorities, we must presume to question the value of some of them, which appear to have the sanction of prescript and antiquity alone; *i. e.*, on page 83: "Apoplexy. If the apoplexy be dependent on active congestion, and the heart act with abnormal power, if there is a strong throbbing, resisting pulse, and the patient be full and plethoric, *blood letting* is indicated. Nine or ten ounces may be drawn from the *external jugular vein.*"

Apoplexy designating hæmorrhage into the cerebral ventricles, a condition in which a quantity of blood has been already withdrawn from the circulation, and most immediately from the circu-

lation of the brain, we fail to see how the condition can be corrected by the removal of more blood.

We would have been glad to see the credit for the discovery of "Bibron's Antidote" (page 85) for snake bite, given to Dr. Daniel Brainard, of Chicago, to whom it belongs, instead of the mythical Bibron, whose existence was long ago shown to have depended upon a typographical error. On page 110 the use of gradually increased doses of strychnia for the relief of chorea, is attributed to Dr. Hammond; the credit properly belongs to Trousseau. The book is excellent of its kind, although we do not like this kind of book. H.

BOOKS RECEIVED.

Dunglison's Medical Dictionary—Henry C. Lea.
Clinical Researches in Electro-Surgery—By JULIUS E. ROCKWELL, M.D., and GEO. M. BEARD, M.D. William Wood & Co.,N.Y.
Lecture on Bright's Disease—JOHNSON. Geo. P. Putnam's Sons, N. Y.
Anatomists' Vade Mecum—Wilson & Buchanan.
The Sphygmograph—EDGAR HOLDEN, M.D. Lindsay & Blakiston, Philadelphia.
A Handbook of Medical and Surgical Reference—WYETH. William Wood & Co., N. Y.
Bellamy's Guide to Surgical Anatomy—Henry C. Lea, Philadelphia.
Barnes on Diseases of Women—Henry C. Lea, Philadelphia.
Diseases of Children—MEIGS and PEPPER. Lindsay & Blakiston, Philadelphia.
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The Southern Medical Record—Atlanta, Dec. 1873 and Jan. 1874.
The Physician and Surgeon—Baltimore, Jan.
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The New York Medical Journal—Feb.
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The Richmond and Louisville Medical and Surgical Journal—Jan.
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Formulæ for Elixirs—American Pharmaceutical Association-HANCOCK, J. F.

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Report on the Immigration Service—By JNO. M. WOODWORTH, M.D., Supervising Surgeon of Marine Hospitals.

Transactions of Indiana State Medical Society.

The Larynx the Source of Vowel Sounds—By THOMAS BRAIN GUNNING, New York.

Report of the Committee on the Yellow Fever Epidemic of 1873 *at Shreveport, La.* 1874.

Report of the Board of Managers of the Western Lunatic Asylum of Kentucky.

Transactions of the Illinois State Medical Society.

Transactions of the American Ophthalmological Society.

Editorial.

"Here lies the water; good: here stands the man; good: If the man go to this water, and drown himself, it is, will he nill he, he goes; mark you that: but if the water come to him, and drown him, he drowns not himself: argal, he that is not guilty of his own death, shortens not his own life.

"But is this law?

"Ay, marry is't; crowner's-quest law."—*Hamlet, Act V, Scene I.*

Here lies the water; good: here stands the man; good: If the man be carried to the water, and held under the water, once, twice, three times, four times, and be drowned, it is a rupture of the heart, because it was fatty; mark you that.

But is this law?

Ay, marry is't; crowner's-quest law.—*Illinois State Prison Reports.*

Thus has the conjoined wisdom of the State Prison Commissioners, the State Prison Dentist, and the State Prison Coroner's Jury settled the vexed question in æsthetics, and demonstrated that a man may die of a broken heart.

But the cause, think of it! fatty degeneration, and in a convict, too! Truly here is a subject for the investigation of legislative economists. What lives of slothful ease and luxury these convicts must lead. Board and clothing at the expense of the State; dentist's bills reduced to "the cost of the gold," and then to die of fatty degeneration and hydropathy.

A broken heart would certainly be a curiosity in this matter-of-fact age. What has become of the one which once, questionably, graced the poor body of the wretched convict, Henry Williams, and, unquestionably, disgraced the authorities of the Illinois State Prison? It was said to have been submitted to a skillful surgeon, and to an expert pathologist and microscopist of this city. Why have they not been called upon to testify to the facts? They are both as well known for their integrity as for their skill; they will both speak the truth, the whole truth and nothing but the truth, when called upon.

Do the authorities fear this? As the matter stands now, it bears this construction. We have waited patiently for the facts in refer-

to the Williams homicide. We have had, thus far, opinions only; the opinions of the commissioners; of the individual who fills the position of—that is to say, the teeth of the convicts; of the peculiarly disinterested gentlemen who practice hydropathy for the cure of malingering and self-abuse; of that sapient body the coroner's jury; and, also, of volunteers, whose official duties lie in quite another direction. Now, these opinions are all valuable in direct proportion to the public's credulity. Science and Justice demand facts; demand to be assured by competent, and, not only competent, but reliable testimony, what was the condition of the heart of the convict, Henry Williams; was there fatty degeneration, or was it sound? was it ruptured, or was it cut by the scalpel of the careless dissector, running too far through the costal cartilages, or designedly, after the removal of the organ, to make that appear an accidental homicide, which uncharitable people might call a murder? Until these facts are adduced and established, these same uncharitable people will continue to call the act, by which Henry Williams was "cut off even in the blossoms of his sin, unhousel'd, disappointed, unanel'd; no reckoning made, but sent to his account with all his imperfections on his head," murder. H.

A few Words to Correspondents.

Please don't write to us, asking that "my name be added to the "long list of subscribers to your valuable journal, and send speci- "men number by mail to my address, when I will remit amount of "subscription." This would necessitate a ride of a mile and a half to our Publishing House, and a loss of time worth more than the annual subscription to the Journal. You can accomplish your object *tuto cito et jucundo* by remitting the amount of the subscription directly to the publishers, who will immediately, on its receipt, forward the JOURNAL to your address.

Please don't send us long speeches on festive occasions, with the request, to "return the manuscript." These belong to the department of "rejected addresses," the return postage upon which would necessitate serious alterations in the Post Master General's estimates.

Send reports of your own cases in practice. Not the rare and remarkable ones only, but those of every-day occurrence; as it is these, and not rare cases, that medical men have to treat. Reports of epidemics possess great value, and should include history, local-

ity, personality, and surrounding circumstances of first cases; course and progress of disease; symptomatology; modes of treatment, both successful and unsuccessful; duration, mortality, etc.

There can be no doubt that practical experiences of physicians, if carefully recorded, would have, long since, furnished sufficient data for the deduction of new principles, and for the decision of many questions *adhuc sub judice;* and it is impossible to say to how great an extent the progress of medical science has been retarded by the neglect to report cases in practice.

In order to do justice to our correspondents, we publish their communications in the order of their reception (with very rare exceptions); and hence are compelled to withold from publication valuable papers for several months; and, in order to do justice to our readers, we have been compelled to reject a number not adapted for publication in our columns.

The JOURNAL is designed to be an index of advances in medical sciences, a mirror of practice, and the mouthpiece of the workers in the profession, through which they and their labors may become known. It cannot become a vehicle for professional advertising.

Elixirs.

We have, on several previous occasions, denounced the habit, indulged in by too many medical men, of prescribing for their patients the various fraudulent compounds known to the drug trade as elixirs. No physician has a moral right to prescribe for a patient an agent of whose composition and probable effects he is totally ignorant; and of the composition of these so-called elixirs he is, for the most part, entirely ignorant. It is true, that for many of them formulæ have been published, by which, it is alleged, they are prepared, and thus a cloaking (in the shape of a label) of legitimacy is assumed. It is likewise true, that many of them are not prepared in accordance with these alleged formulæ, and, moreover, could not be, as they suggest pharmaceutical paradoxes.

The difference between these and the old fashioned patent medicines of Ayer, Brandreth, Holloway, *et id genus omne*—which, by the way, they seem to have nearly supplanted—is simply a difference of form, not of principle. The best that can be said in their favor is, that the majority of them are utterly worthless, as far as any therapeutic activity is concerned.

We are very glad to see that the American Pharmaceutical

Association has taken up the consideration of this traffic, with a view to its suppression. The report of its committee, appointed at its last—the twenty-first annual—meeting, has just been received from Prof. Maisch, the permanent Secretary of the Association. The report contains numerous formulæ for the preparation of elixirs, which are proposed for adoption into the Pharmacopœia, and which will have the merit of being definite, and should become officinal. By their adoption, the medical profession will be spared the humiliation of looking to Messrs. A., B., or C., manufacturing druggists, for therapeutical suggestions. The report referred to is republished in detail in the *Pharmacist* for February, 1874. H.

Law vs. Physic.

A writer in the *Pharmacist*, in the course of a long article, the gist of which seems to be that he has had too much law in his physic, takes occasion to ridicule the act of the legislature, restricting the sale of poisons. The necessity for such a law is thus demonstrated: In the month of April, 1873, a lady of this city applied at three prominent pharmacies for two ounces of laudanum, the sale of which was refused to her on the ground of its dangerous nature. A fourth was found, whose dispenser, less scrupulous, furnished to a lunatic—unknown to him, of course—the means by which she destroyed her own life within a few hours. The self-satisfaction of the first three, upon learning their own escape from implication in such a tragedy, seemed to be ample compensation for the loss of so small a sale.

The law, moreover, is nothing more than an attempt to enforce upon *all* the observance of that degree of caution which has been habitually exercised by our best pharmacists spontaneously for many years.

Further, the same writer remarks: "In reference to Section 2 of the law forbidding the sale of abortifacients, etc., it need only be stated that 'any person' can buy, throughout the State of Illinois, any amount of 'pills, powders, drugs, or combinations of drugs, designed expressly for the use of females,' etc., etc., etc."

Now, to assert, or even to prove, that there are scoundrels here, as elsewhere, who, for filthy lucre, will infringe or evade a law, is certainly a very poor argument against the justice of the law, or the wisdom of its enactment. Moreover, we are scarcely willing to believe that so many of his own profession are so demoralized and debased, as this writer would seem to imply.

The city of Chicago swarms with thieves: are all laws against theft ridiculous therefore? Because murders are repeatedly perpetrated, are all laws for the protection of human life for that reason absurd?

To the strictly conscientious, the comprehensive formula, "Do as you would be done by," anticipates more specific legislation; he will no more sell poison to a possible suicide or murderer, or an abortifacient to a probable criminal, than he will give to a child a razor for a plaything. To him whose rule of life is the statute-law, and whose motto is "Do, lest you be done," specific legislation is essential, and the rigid infliction of its penalties his only comprehensible argument. H.

Mortality Statistics.

Special attention is directed to the Mortality Report at the conclusion of this number. In it we are informed that "the diminution of the mortality is wholly due to the thorough system of vaccination and revaccination employed by the Board of Health, etc., etc. This is undoubtedly true as far as it goes; but the fact is, that the vaccination and revaccination has as much to do with the diminution in the mortality as the excellent quality of Fuseli's colors had to do with the beauty of his painting, for even these would have been inefficient had they not been mixed with "Brains, Sir"! Vaccination and even revaccination without a little administrative ability—brains—in its application, would prove but a very feeble barrier against small-pox, and brains alone will constitute always a strong barrier against any and all epidemics.

We are glad to see the Sanitary Superintendent justifying some of the opinions which we expressed of him at the time of his appointment.

Now let the Council clear out the dead wood amongst his colleagues, and they will learn to their surprise, perhaps, that epidemics, like some other things, can be controlled by those who know how.

H.

Historical Sketch of Rush Medical College, from the Address of PRESIDENT FREER *to the Graduating Class, February* 17, 1874.

At the close of this, the thirty-first annual session of Rush Medical College, in view of the somewhat peculiar relations in which the institution is now placed, it may not be uninteresting to take a brief glance at its history, material for which we gather partly from the introductory lecture to the eleventh session of the College, by our former colleague, the distinguished Dr. Daniel Brainard, and partly from personal recollections.

The first idea of the establishment of a Medical College in Chicago dates as far back as 1836. In the autumn of that year, Dr. Brainard, in connection with the late J. C. Goodhue, of Rockford, in this State, then a resident of this city, drew up the act of incorporation, which was at the ensuing session of the Legislature at Vandalia passed, and approved by the Governor the 2nd of March, 1837. Owing, however, to the financial revulsion that fell with blighting influence upon private and public enterprises alike, some of those who the year before had the means and disposition to aid and handsomely endow the institution, now found themselves without the means of supporting their own families. No action, therefore, took place under the charter before the summer of 1843. Early in the autumn of that year, the Faculty of the College was organized by the appointment of four Professors—Drs. Brainard, Blaney, McLean and Knapp. The session commenced the 4th of December ensuing, and continued sixteen weeks.

This was before the erection of any building, and the lectures were delivered in two small rooms on Clark street. The number of students attendant upon this course was twenty-two; but a single degree was conferred, the first graduate of the institution being William Butterfield, then and now a resident of this city.

During the summer of 1844 the building occupied until the close of the tenth session was erected upon the south-east corner of Dearborn and Indiana streets, upon a lot donated for the purpose by several public-spirited citizens of the "North Side." The cost of this structure was about $3,500, defrayed partly by loan, partly by subscriptions, and the remainder made up by the Faculty.

In 1855 this building was entirely remodeled and enlarged, so as to accommodate about 250 students, at an expense of $15,000, this expense being wholly sustained by the Faculty.

Among the noted men, some deceased and some yet living, connected with the Faculty during this period, may be mentioned Daniel Brainard, William B. Herrick, and Thomas Spencer, deceased; Austin Flint, now of Bellevue Hospital Medical College, New York, and widely known as a medical author; Graham N. Fitch, afterwards U. S. Senator from Indiana; John Evans, late Governor of Colorado and U. S. Senator elect from that incipient State; and Dr. J. V. Z. Blaney, successor to Dr. Brainard as President of the College Faculty, and now Emeritus Professor of Chemistry.

In 1867, the continued and increasing prosperity of the College demanding immediate and large increase of room and general facilities for instruction, an entirely new edifice was erected upon the vacant portion of the College lot, and the old structure was remodeled so as to be merely an appendage. It had two lecture rooms, each with a seating capacity of over 700; spacious laboratory, anatomical rooms, etc., etc., constituting it, probably, the best arranged if not the largest Medical College in this country or any other. The approximate cost of the whole improvement, exclusive of the original lot and building, was about $70,000, and was met solely by the members of the Faculty. The apparatus, museum, cabinets, furniture and fixtures in the building, although very valuable, can scarcely be estimated in money. Whatever the value of the whole, in a single night, the memorable 9th of October, 1871, it disappeared.

Soon after the completion of the new building the institution received a shock by the death of its founder, Dr. Brainard, necessitating the following changes in the Faculty: Dr. J. V. Z. Blaney succeeded to the Presidency; Dr. Moses Gunn, then Professor of Surgery in the Medical department of the University of Michigan, was called to the vacant chair of Surgery; and Dr. Edwin Powell appointed Professor of Military Surgery and Surgical Anatomy. Since that time there have been added the Chair of Clinical Medicine and Diseases of the Chest, and Diseases of the Eye and Ear, filled, the former by Dr. Joseph P. Ross, and the latter by Dr. Edwin L. Holmes. Drs. Henry M. Lyman and James H. Etheridge have been appointed respectively to the Chair of Chemistry and Pharmacy, and Materia Medica and Medical Jurisprudence, made vacant by the resignation of Drs. Blaney and Ingals.

Dr. Walter Hay has been appointed adjunct Professor of Principles and Practice of Medicine, assuming the particular department of Diseases of the Brain and Nervous System; Dr. F. L. Wadsworth, assistant to the Chair of Physiology and Microscopic Anatomy; and Dr. Charles T. Parkes has for several years past discharged the onerous and important duties of Demonstrator of Anatomy to general satisfaction.

Three days after the great fire, by the kindness of the County Commissioners, a large proportion of the class having returned, the lectures were resumed in the amphitheatre of the county hospital, and at the ensuing commencement the degree of M.D. was conferred upon seventy-seven candidates.

From that period to the present, our history is so familiar to you all, that further elaboration is quite unnecessary. Rush Medical College again possesses ample means of illustration, and presents for consideration a united, experienced and harmonious Faculty, almost unequaled clinical advantages, and prestige that throughout the whole country gives character and influence to its alumni. In 1872 the Faculty of the Spring Course of Rush Medical College was reorganized by competitive examinations, or *concourse*, by which means a full corps of competent instructors was selected and assigned to their respective Chairs. This method of *concourse* is new—an innovation—in the management of Medical Colleges in this country, but the executive Faculty of Rush are satisfied, by the results so far attained, that it will be a growing benefit to the institution and its patrons.

Chicago Mortality Report for January, 1874.

CHICAGO, February 17th, 1874.

Editors Chicago Medical Journal:

SIRS—I send you a copy of the Mortality Report of the City of Chicago, for January, with comparisons of some of the principal diseases with the preceding month; also the corresponding month of last year.

I desire to call your attention to the comparison of small-pox of last month, with the corresponding month of last year. The diminution in the mortality is wholly due to the thorough system of vaccination and revaccination employed by the Board of Health, although not put into active operation until about six weeks since. It not only shows the protective power of vaccine (animal virus was used), but also demonstrates fully that vaccination is cheaper than funerals.

Respectfully,

BEN C. MILLER, *San. Supt.*

MORTALITY IN MONTH OF JANUARY, 1874.

Accident, burns	2	Heart, disease of	4
" crushed	3	" organic disease of	2
" drowning	1	" hypertrophy of	2
" by fall	3	" valve disease of	1
" thrown from buggy	1	Hemiplegia	1
" overdose of morphine	2	Hepatitis	2
" " " laudanum	1	Hernia, strangulated	1
" " " narcotic	1	Hydrocephalus	4
" by railroad	3	Inanition	9
" by scalding	1	Intemperance	1
" by suffocation	1	Influenza	2
Abscess, psoas	1	Jaundice	1
Aneurism of aorta	1	Kidneys, Bright's disease of	3
Aphthæ	1	Laryngitis	1
Apoplexy	4	Liver, cirrhosis of	1
Bowels, obstruction of	1	" inflammation of	1
" ulceration of	1	Lungs, congestion of	9
Bladder, " "	1	" paralysis of	2
Brain, congestion of	7	" hemorrhage of	3
" softening of	2	Malformation	1
" inflammation of	9	Metritis	2
Bronchitis	20	Measles	1
" capillary	14	Meningitis	14
Cancer	2	" cerebro spinal	9
" of breast	1	" tubercular	2
" of stomach	3	Metro peritonitis	1
Child-birth	1	Œdema pulmonum	2
Cholera infantum	1	Old age	15
Consumption	53	Ovariotomy	1
Convulsions	86	Paralysis	2
" puerperal	2	Perrotitis	1
Croup	16	Pelvic bone, enlargement of	1
" membranous	1	Pericarditis	1
Colic	1	Peritonitis	6
Cyanosis	2	" puerperal	1
Debility, general	1	Pharyngitis	1
Delirium tremens	1	Pneumonia	60
Diarrhœa, chronic	2	" typhoid	2
Diphtheria	5	Pleurisy	1
Dropsy, general	3	Rheumatism	1
" cardiac	2	Small-Pox	24
" peritoneal	1	Spina bifida	1
Dysentery	1	Suicide, drowning	1
Embolia	1	" laudanum	4
Enteritis	9	" poison	1
Exhaustion	1	" shooting	1
Epilepsy	3	Syncope	1
Erysipelas	3	Tabes Mesenterica	12
Fever, puerperal	7	Teething	6
" remittent	2	Tumor on back	1
" scarlet	5	Ulceration of rectum	1
" malignant	2	Uterus, hemorrhage of	1
" typhoid	13	Vitality deficient	1
Gangrene	3	Whooping cough	5
Gastro Enteritis	1		
Total			553

Premature births, 7 ; Still births, 70. Total 77

COMPARISON.

Deaths in month of January, 1874	553
" " preceding month in 1873	565
Decrease	12
Deaths in corresponding month in 1873	711
Decrease	158

AGES.

Under one year			209	Forty	years to	fifty	38
One year to two			45	Fifty	" "	sixty	26
Two	years to	three	37	Sixty	" "	seventy	23
Three	" "	four	9	Seventy	" "	eighty	15
Four	" "	five	7	Eighty	" "	ninety	4
Five	" "	ten	19	Ninety	" "	one hundred	1
Ten	" "	twenty	12				
Twenty	" "	thirty	53		Total		553
Thirty	" "	forty	55				

Colored	5	Males	321
White	548	Females	232
Total	553	Total	553

Married, 162; Single, 391. Total 553

NATIVITIES, JANUARY, 1874.

Austria	1	Holland	3
Belgium	2	Ireland	52
Bohemia	4	Italy	1
Canada	8	Norway	11
Native—Chicago	70	Scotland	2
Foreign, "	224	Sweden	6
United States, other parts	72	Switzerland	4
England	10	Unknown	12
France	2		
Germany	69	Total	553

Deaths daily, 18. Mean temperature, 29°. Rain fall, 4.47 inches.

MORTALITY BY WARDS, ETC., JANUARY, 1874.

Wards.	No. Deaths.	Pop. in 1872.	Percentage. one death in
1	1	398	" " " ----
2	4	2,174	" " " ----
3	15	19,157	" " " 1,277
4	12	16,832	" " " 1,403
5	19	18,564	" " " 977
6	51	31,371	" " " 627
7	41	27,644	" " " 674
8	30	30,253	" " " 1,008
9	38	30,032	" " " 790
10	16	16,624	" " " 1,039
11	18	18,340	" " " 1,019
12	16	20 876	" " " 1,304
13	19	14,636	" " " 770
14	16	15,892	" " " 931
15	87	40,047	" " " 460
16	34	19,099	" " " 561
17	35	17,513	" " " 500
18	29	19,977	" " " 689
19	2	2,944	" " " ----
20	11	5,023	" " " ----
	494		

Ratio of deaths to population in 1872, one death in 664.

No. deaths brought forward	494	St. Luke's Hospital	2
Accidents	19	Protestant Orphan Asylum	2
Bridewell	1	Small-Pox Hospital	4
County Hospital	10	St. Joseph's "	1
Foundlings' Home	3	Suicides	7
Half Orphan Asylum	1	Mercy Hospital	5
Home for Friendless	2		
Hospital, Alexian Bros.	2	Total	553

CASES OF SMALL-POX REPORTED DURING JANUARY, 1874.

Ward.	No. Cases.	Ward.	No. Cases.	Ward.	No. Cases.
1	1	8	--	15	18
2	1	9	1	16	8
3	3	10	2	17	7
4	1	11	2	18	8
5	1	12	--	19	1
6	12	13	2	20	--
7	9	14	--	Recently arrived,	2

Total 79

Cases during January, 1874 79
" " December, 1873 122
Decrease 43

Cases during January, 1873 270
Decrease 191

Compared with the preceding month there were—

3 less deaths by	Accidents.	2 less deaths by	Paralysis.
9 " " "	Apoplexy.	3 " " "	Rheumatism.
2 " " "	Cancer.	12 " " "	Small-Pox.
5 " " "	Consumption.	4 " " "	Tabes mesenterica.
6 " " "	Debility, general.	5 more " "	Brain disease.
3 " " "	Diarrhœa.	9 " " "	Bronchitis.
16 " " "	Enteritis.	11 " " "	Convulsions.
3 " " "	Epilepsy.	8 " " "	Croup.
2 " " "	Fever, remittent.	4 " " "	Lung disease.
4 " " " "	typhoid.	8 " " "	Meningitis.
6 " " "	Heart disease.	2 " " "	Old age.
2 " " "	Hydrocephalus.	22 " " "	Pneumonia.
3 " " "	Inanition.	3 " " "	Suicide.

Compared with the corresponding month of last year, there were—

15 more deaths by	Accidents.	3 less deaths by	Delirium tremens.
5 " " "	Bronchitis.	9 " " "	Diphtheria.
3 " " "	Consumption.	2 " " "	Dropsy.
8 " " "	Meningitis.	7 " " "	Enteritis.
1 " " "	Œdema pulmonum	10 " " "	Erysipelas.
1 " " "	Paralysis.	13 " " "	Pericarditis.
1 " " "	Teething.	5 " " "	Pneumonia.
3 less " "	Apoplexy.	2 " " "	Pleurisy.
8 " " "	Consumption.	40 " " "	Small-Pox.
2 " " "	Croup.	1 " " "	Tabes mesenterica.

THE

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A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

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Original Communications.

ARTICLE I.—*Valedictory Address to the Graduating Class, Rush Medical College, Feb.* 17, 1874. By DE LASKIE MILLER, M.D., Prof. of Obstetrics.

Standing in the centre of an extended plain, the tallest man can discover objects only at a limited distance. Should he be surrounded by undulations of the surface, the radius of his vision would thereby be shortened, and its area circumscribed. Would he look out and over the landscape, one thus situated must seek some elevation; he must ascend to the lofty summit, though to reach it requires toilsome exertion. Then only does the beauty of the varied scenery presented to his vision around and below him, repay his effort.

As in the physical world, so in many respects is it in the intellectual. The uneducated man sees no harmony or relation in the varied phenomena of nature. And if surrounded as he usually is by superstition, the unveiling of the forces of nature excites in his mind rather the feelings of apprehension and dread. He can-

not look beyond the cloud, nor see by the lightning's glare, nor above the thunder hear a "still small voice." It is not till one thus situated has ascended from the low plane of ignorance, that fear will give place to any real pleasure, in the contemplation of nature or of nature's works.

The progress of the scholar has been allegorically compared to one making a difficult ascent of the steep mountain-side—"The hill of Science"—up which the toilers make slow and unequal progress. Some outstrip their companions for a time, but relax their efforts and fall behind when only part way up. A few, though they advance slowly, finally, by perseverance, reach the summit, and then realize a consummation of the pleasures of hope, as revealed in a knowledge of the sciences which they now may read in the volume of nature open before them.

As he who from a favorable height views the varied landscape, with its hills and valleys, river and lake, city and hamlet, presenting variety and beauty, but also a complexity amounting almost to confusion: so with the scholar, when retrospecting the subjects which have, individually and in detached portions, for so long a time occupied his attention. So diverse and even antagonistic do they seem in their nature, that to reduce them to a unity, and bring their manifestations into harmony, may well appear impossible. For does he not observe in the phenomena of nature the almost endless variety and complexity of her forces? How diverse in mode and result!

By partial views he regards light, heat, gravitation, electricity, magnetism, sound, as distinct entities. The operation of some *one* or more of these forces he sees manifested in the dew-drop sparkling in the rays of the morning sun, or in the brilliant hues of the flower on the mountain-side, or in the ponderous force that has lifted the summit of that mountain above the clouds—in the lightning's flash and attendant thunder—in the movements of planets through ether. Could anything seem more demonstrative of *diversity of forces*, subject to *different laws?*

The sum of human knowledge, when thus scanned, appears broken and fragmentary. The actual procedure of nature differs diametrically from man's method necessary to arrive at a knowledge of it. From primordial unity *her* processes radiate in multiplied combinations. Man must seize upon each separate development,

group by comparison and distribution, and slowly and painfully explore his way to the parent stem.

Since the discovery of the law of gravity, more than two hundred years ago, no scientific achievement has been so fruitful in results as the determination of the mechanical equivalent of heat. A body of a given weight, falling through a given distance, suddenly arrested, produces a definite elevation of temperature. The knowledge of this simple fact has wrought a marvelous change in all our conceptions of matter and force, and gives promise of results which the imagination fails to grasp. It is now considered that heat, motion, light, electricity, magnetism, chemical attraction, and mechanical work, are all but exhibitions of one and the same power, acting through matter. The molecules of matter variously stirred by this all-pervading force are thrown into waves, which impinge against our senses, and the motion thus communicated to our nerves, impresses us as heat, sound, light, etc., according to the rapidity and breadth of the undulations. If an undulation of one sort is interfered with, another immediately succeeds, of exactly the same strength. Light transforms itself into chemical action, this into heat, and heat into motion. All these modes of motion are not only mutually convertible, but they may also be turned into mechanical work. Force is a constant energy, and has been since the world began, never increasing nor diminishing in absolute value. Like a stream, now flowing in an uninterrupted channel silently and imperceptibly, now thrown into gentle undulations as it comes into contact with the subtle forms of matter, and now giving striking display of its power, as it meets with greater resistance. Light, sound, heat, the invisible flow of the terrestrial magnetic currents, as well as the aurora and zodiacal light, the circulation in plants and animals, are but modifications of a single force!

A professor of natural science once received from a member of his class the following question, "What would be the result, if an *irresistible* force should come in contact with an *immovable* body?" The professor, not suspecting that he was being quizzed, went into an elaborate argument to explain what would happen, with this conclusion, "The *irresistible* force would be partially obstructed, while the *immovable* body would yield a little, and finally they would settle at rest!" Query, was the professor posted in the modern doctrine of the persistence of force?

From the unity of force, a single step leads us to the comprehension of the unity of matter. The whole tendency of the revelations of modern science is to do away with the notion of an indefinite number of primary elements, and therefor to substitute a smaller and still smaller number of primitive forms of matter. By changes in the mode of aggregation of the atoms, which changes depend on the degree and kind of motion with which they are surrounded, matter appears to us under certain definite forms—as water, earth, iron, etc. From the results of analyses already made, we are justified in the inference, that bodies now believed to be elements must yet yield to the quest of the scientist the fact of their inherent compound composition. What revelations may we not hope for from our modern improved means of interrogating nature? Results may be looked for, more startling than the dreams of the alchemist; results which warrant the conclusion that *variety* of form and *unity* of substance, the evolution of the complex from the simple, is the fundamental principle of nature. Carried further, this view renders probable the position, that, pervading the vast domain of nature, occupying interstellar space, an *ether* exists in a state of *motion*. The ethereal atoms form societies, which are the molecules of bodies—a body is a collection of these societies of molecules. Between these atoms—molecules and bodies—exchanges of motion take place, which give rise to the phenomena of light, heat, gravity, etc. Pursuing the thought to this point, the scientist is led to exclaim, "Grant us, then, the *atom* and *motion*, we show you the *universe!*"

This doctrine is presented as the lesson of to-day. By experiment and logic we are urged to adopt the conclusions. When our assent to this has been obtained, we are bid to step boldly across the line that divides inorganic from the organic, and note the wonderful in this new domain! What force raises the forest against gravitation, till the branches reach the clouds! Estimate the weight of the giant oak, and all doubt of the potent energy of nature will be dissipated. In the vegetable kingdom, the operation of heat, as the dynamical agency to which the phenomena of growth and development are to be referred, is well seen in the process of germination. But this process is by no means a simple one. The nutriment stored up in the seed is, in great part, in the condition of *insoluble starch*, and this must be brought into a *solu-*

ble form before it can be appropriated by the embryo. By the *diastase*, starch is converted into *dextrine*, and then into sugar; the dextrine and sugar combine with the albuminous and oily compounds, and form the protoplasm, from which the tissues of the young plant are derived.

This account of the uses of starch in vegetation differs, in some particulars, from that given by the student under examination for his degree, who, when asked, "What are the uses of starch in germination?" answered, "The uses of starch in the German nation and elsewhere are for dressing linen, and for other laundry purposes."

Now. it can be easily shown, experimentally, that the rate of growth in the germinating embryo is so closely related (within certain limits) to the amount of heat supplied, as to place its dependence upon that agency beyond reasonable question, so that we are entitled to say that *heat*, acting through the germ, supplies the constructive force by which the vegetable fabric is built up. The correlation between heat and the organizing force of plants, is not less intimate than that which exists between heat and motion. The special attribute of the vegetable germ is the power of utilizing, after its own particular fashion, the heat which it receives, and of applying it as a constructive power to the building up of its fabric after its characteristic type.

Advance to a higher plane, and these identical forces are still met, and may be appreciated in the complex functions peculiar to animal organization.

The primitive cell, like that of the vegetable, is formed out of the inorganic world, and in both a series of motions succeed each other, according to a fixed order, obeying the law of molecular mechanics; *vital* energy, then, is the resultant effect of all other forms of force. The organism is subject to, and readily responds to all physical influences. Heat, light, and motion, are indispensable to life, and to the inert germ they, under proper conditions, impart the required energy to perfect and mature the organism. No living body can originate power: it can only convert the stored force derived from food. The force of the animal organism is derived from the vegetable, and that, in turn, from the mineral, through chemical interchanges.

As vibratory motion, in the animal organism, finds a resultant in integral motion, so mechanical motion may be resolved, in the

organism, into vibratory motion. Modes of external and internal friction are excitations which stimulate and quicken vitality. There is no part of the vital economy of any organ of growth, increase or decay—no change in any organic expression, but is the result of a movement in which the entire vitality has participated, directly or remotely, and in all the parts harmoniously.

The law of the unity and the persistence of force transcends experience by underlying it. Its dominion is not limited to physical phenomena: it prevails equally in the world of mind, controling the faculties and processes of thought and feeling. The star-suns of the remote galaxies dart their radiations across the universe; and although the distances are so profound that hundreds of centuries may have been required to traverse them, the impulses of force enter the eye, and, impressing an atomic change upon the nerve, give origin to the sense of sight. Star and nerve tissue are parts of the same system. Stellar and nerve force are correlated; more, sensation awakens thought and kindles emotion. So that this wondrous dynamic chain binds into living unity the realms of matter and mind through measureless amplitudes of space and time.

Emotion and ideas display outward phenomena, which are subject to the laws of thermo-dynamics. The operations of the mental and emotional faculties are accompanied by a change of temperature in the brain. May not, then, the greatness of an idea and the strength of an emotion be measured, and their mechanical equivalent established?

Upon premises like these, *one law in nature* is introduced as the radical fact in the creed of to-day, which is interpreted to mean that this all-pervading and unchanging *law* is the "*fons et origo*" of all the wonders that salute us on every hand, admitting no intelligence or will superior to it.

(Lest my friend here (Rev. Dr. Sullivan) may begin to feel anxious about the orthodoxy of a member of his flock, I stop to say that these Unitarian views are advanced in a scientific sense, not in a theological.)

I regard the facts established by science as comparable to a few pebbles, gathered by finite minds on the shore of the infinite ocean of truth. What, then, are the mysteries still hidden in the bosom of the mighty unexplored? How far transcending all stretch of thought, that unknown and Infinite cause of all things?

The facts which we think we comprehend, we are attempting, as children string their beads, to arrange and classify, that we may study their relations with each other. It is fortunate for us that this string which we call *law*, is not an iron chain, binding the Infinite to blind chance, but a golden thread held by the hand of the Creator.

I see behind these phenomena, and upon which they depend, a *force*, that knows no difference between great and small, between ponderous and buoyant—a *force* that moves all things in harmony with its own will; that requires no greater effort to create a planet than to round a tear—a force which can reside only in Omnipotence, which we name God!

To Sir William Hamilton is attributed the following sentiment, which is reflected by gilded letters on the wall of one of the lecture rooms of the University of Edinburgh: "On this earth there is nothing great but man; in man there is nothing great but mind." Do I violate any rule of ratiocination when I assume the origination of all power in mind? Recall a sight frequently seen from our city: two noble ships, well freighted, sailing on right lines, but in opposite directions; if left to the force of the winds, would they not drift to certain destruction? Could the magnificent system of railways in our country ever have been constructed, independent of the *mind* of the engineer? What power, in two short years, could raise from ashes a city, which, in style and elegance, eclipses all others, but the *intelligence* of our citizens? And further, there are grounds for the belief that the phenomena of the material universe are the expressions of a mind and will of which man's is the finite prototype. To admit this, will be to admit the existence of the supernatural, always working in and through the natural. Force ceases to be a blind attribute of matter, and becomes a living, active principle, spiritual in its character, to which the human spirit turns evermore in solemn and mysterious worship.

The argument has been extended even beyond the point which we have reached. Carried to its logical sequence, it is affirmed that the theory of *evolution* is established. The conclusions succinctly stated, stand thus: The origin of species is the result of the ever varying manifestations of force. Vital force is not an independent energy; the modes of interchange are those of motion and primary force. Organic growth is affected by moisture, light

and heat-motion. All organic as well as inorganic interchange is atomic. The axes of crystals even represent unequal resultants of force: so resultants of organic interchange are represented by unequal axial directions. Interchange is solicited in one direction more than another, and the resulting figure of growth is elongated in that axial direction. So that organic interchange is greatest in the direction of most motion, and follows the paths of least resistance. From a dynamic point of view, natural selection is the evolution of life, along lines of least resistance. The preservation of varieties that succeed better than their allies in coping with surrounding conditions, is the continuation of vital movement in those directions where the obstacles to it are most eluded. On this is based the doctrine of "the struggle for existence, and the survival of the fittest."

This doctrine excludes creation and theism. The great work of nature by evolution culminates in the production of man. In reaching his present high estate of powers and endowments, man represents the sum of all the creative energies from primeval time; and is an improvement only, upon all that has preceded him. Man civilized is more perfect than the ape, more perfect than the savage.

Is this the *true* account of man's genesis? If it is, it must and will be found in accord with religion and revelation. What we call the *laws of nature*, are but the modes of expression of the Divine Will. Time is an unessential element in the fruition of God's great plan, for with Him "a day is as a thousand years, and a thousand years as a single day." I am anxious only as to the *truth* of the theory of evolution. Manifestly much remains to be learned, by finite minds. As presented by its advocates, the doctrine of evolution is *incomplete* or *untrue*.

I perceive in the long road of evolution numerous chasms, which remain to be filled up, or bridged over. In this chain of succession numerous links are wanting to complete its continuity and strength before it can bind as a law. A few are as follows, *e. g.*: First, material and force with which evolution shall begin. Whence come they? Are all things made out of nothing and by nothing? or are we *idealists*, and choose to believe in the non-existence of matter, and thus play with language? Though we say that man descended from the ape, the ape from an amphibious animal, this from a fish,

and this, in turn, through long successions from the protean Rhizopod, which performs the functions of vitality without organs; laying hold of its food without members, swallowing it without a mouth, digesting it without a stomach, assimilating it without absorbent vessels, or a circulating system, moving without muscles—a fragment separated giving origin to a new and independent being, —still we are as far from a satisfactory answer as when we started! Second, Where shall the link be inserted that connects animals and vegetables? Third, The gap that yawns between the species is as broad to-day, as it was before Darwin undertook to fill it. Fourth, It has not been proved that any animal, by any force in itself, can rise to the self-conscious and reasoning nature of man. The intelligence of animals is a closed circle, ever returning into itself: while that of man is progressive, inventive and accumulative. Fifth, Nor can the gap between the religious and moral sentiments of man and the instincts of brutes be filled by the miserable ape.

The alternative is the doctrine, that "God formed man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul." This doctrine carries with it the inference of separate creations. I suppose it to mean that all things have been produced by the Supreme creative will, either directly or mediately, through the agency of the forces and materials of his own providing. This does not imply that creation was miraculous, in the sense of being contrary to law. It does not contradict the idea of succession. There is no necessity that the process should be instantaneous and without progression. It does not imply that all kinds of creation are alike. Man's creation was in perfect harmony with the laws of procedure, which the Creator had established for his own operations. May not creation and derivation be complementary of each other? Is there any more difficulty in believing in the creation of ten millions of species (vegetable and animal), than in one out of nothing.

In all this matter we represent the man standing in the centre of an extended plain. The most cultivated and exalted intellect can discover the relation of facts only to a limited extent. *We* see no relation between phenomena, but just beyond our intellectual horizon all may be manifested. In our view, the chain may

appear broken; there, the links may be supplied. To us, chasms appear impassable; there, no irregularities exist, for—

> "All are but parts of one stupendous whole,
> Whose body nature is, and God the soul."

In conversation upon the merits of medical practice, one of the most learned and eloquent divines of this country said to me, "In my mind the question is settled. My father's family has been raised under the science and skill of regular physicians; my own has been thus far, and I entertain no thought of change. I am willing to accept results." In like manner I hold to the teachings of the Bible upon this point. From this source we obtain a more satisfactory solution of the subject than has been presented elsewhere. From revelation only, do we obtain any just conception of the attributes of an Artificer capable of producing such a work as man. "So noble in reason; so infinite in faculties; in action so like an angel; in apprehension so like a God; the beauty of the world, the paragon of animals—surely he must be allied to the Deity."

We are in the habit of measuring the greatness and the wisdom of the universe by the duration and profit it promises to our own race. A Roman sword or vessel from Nineveh awaken in us the conception of grey antiquity. We gaze upon the remains of Egypt and Assyria with silent astonishment. With an effort, we carry our thoughts back so far. Still, the human race must have existed for ages, and multiplied itself, before the pyramids were raised! We estimate the duration of human history at 6,000 years; but what is this in comparison with the time during which the earth carried successive series of rank plants, mighty animals, and no men. The history of man is but a short ripple on the ocean of time.

During the lapse of these cycles, there has been no time when to live was so great a boon to intelligent creatures as the present. Though it be a time of restless activity; of conflict of minds; of aspirations after the higher and better—it is a time, also, of progress, of invention, of improvement. Let the struggle proceed; it will surely issue in the survival of the fittest.

Coming out of this universal unrest, already we have innumerable appliances to aid in human efficiency, the conversion of

force in a thousand ways doing the work of human hands—steam for our motive power, lightning for our messenger, by which distant nations are made neighbors, effecting by concentration an increased efficiency of thought. A new idea or invention, started on any part of the globe, instantly becomes the property of all, and is at once assimilated into the accumulated mass of intellectual capital. Thus, by the telegraph wire—the *chorda vitalis* of mankind—the minds of all peoples act in harmony, responsive as the brain of an individual, in moving forward the car of progress.

Though invention and execution have added immensely to our resources for social, domestic and economic comfort and utility, the demands upon science are not yet canceled; nor will they be, till we have gained better and cheaper motive powers than steam; till we may travel from continent to continent on submarine railways, or by flying or ballooning through the air; till man can call down rain at will, when crops may be increased five-fold; till artificial light for domestic use shall be as cheap and abundant as water; till human life is protected from the dangers of explosions; till death's high carnival on land and sea is ended, by utilizing force, so that collisions become impossible, by rendering trains and ships repellant, preventing contact.

To members of the medical profession, the world is indebted for many of the useful inventions of life. Still greater achievements await well-directed efforts. I have an abiding faith in the unlimited possibilities of medical science. The day will come when physicians shall be familiar with the chemistry of diseases; when they shall know the exact poisons that produce them, and their antidotes; when they shall look upon the cure of maladies as simply a series of chemical problems and formulas; when they shall melt down all calculi and necrosed bone chemically, and not remove them by surgical operations; when hemorrhage shall be arrested, not mechanically, but by the simple application of gases and washes; when wounds shall be swiftly healed by first intention; the ravages of tubercle shall be stayed; fevers and inflammations shall be blotted out; when all morbid growths may be melted down; cancer cured; when all morbific organic germs may be destroyed; when contagion may be annulled—and thus the average duration of human life shall be lengthened, so that the ancient prophecy may begin to be fulfilled: "The child shall die an hundred

years old." With *force*, *matter*, *mind*—the trinity of humanity—what may not be accomplished?

Standing on this high plane of improvement and possibilities, imbued with the spirit of the age, we may serenely contemplate the history, achievements and prospective triumphs of the medical profession. In its broad catholicity all are made recipients of its kindly offices. Especially when the dark cloud of disease is settling down to envelop, there are none so high, though the brow be pressed by a glittering crown, that they do not petition it for relief; there are none so lowly, though possessing only poverty and its deprivations, but bless it for its benefactions.

From this standpoint how puerile and petty seem the discussions that have sometimes marred the life and character of the disciples of Esculapius!

How simple, to apply no stronger epithet, are those who restrict themselves to portions only of the resources of our art, and boast of belonging to a distinct school! A distinct school, forsooth! There is but *one* school of medicine, as there is but *one* science of medicine, which embraces all sciences. Cavilers at scientific medicine are not peculiar to our day. They have, in one form or another, from the earliest days, arrogated to themselves the honorable title of physician, and often disparaged science. Such should be warned by the fate of their great prototype, of whom Milton wrote:

> "He fell
> From morn to noon, from noon to dewy eve,
> And was headlong sent
> With his industrious crew to build in ****"—the pit whose perfume is that of their specific for psora.

History is burdened with the detail of the successive and ignoble exequies of the sects who scoff at legitimate medical practice. And it shall ever be thus. Partial views are incomplete, therefore defective. Those who act on defective views may well be compared to bayous, which come to an abrupt termination, or to rivulets (and some are very small) that dry up in a brief time; while scientific medicine, like a noble river, ever increases in volume and power as it flows onward toward the infinite!

In looking back over this whole subject, is it not possible to see the beautiful harmonies of nature; that on her many stringed instrument *force* answers to *force*, like the notes of a great sym-

phony; disappearing now in potential energy, and anon reappearing as actual energy, in a multitude of forms? Does not this wonderful unity and mutual interaction of force in the forms of inorganic nature, appear identical in the living forms of vegetable and animal life? That even that mysterious and in many aspects awful power of thought, by which man influences the present and future ages, is a part of this great ocean of energy. But here the great question rolls upon us, Is it only this? Is there not behind this material substance, a higher than molecular power, in the thoughts which are immortalized in the poetry of a Milton or a Shakespeare, the art creations of a Michael Angelo or a Titian, the harmonies of a Mozart or a Beethoven? Is there really no immortal portion separable from this brain-tissue, though yet mysteriously united to it? In a word, does this curiously fashioned body inclose a soul—God given, and to God returning? Here science veils her face, and bows in reverence before the Almighty. No word but His who formed us can break the awful silence. But faith comes in joyfully to accept that higher truth, which can never be the object of physical demonstration.

Graduates of 1874—Gentlemen:—I have made these remarks in your hearing as suggestive of thought. It may be a useful exercise of the mind for you to add to the argument and illustration. On an occasion so interesting as the present is to you, the topics touched upon are not inappropriate. No subjects are too broad or deep to claim your attention. Something more is expected from you than that you know how to estimate an ordinary dose of some sudorific or anodyne. You are expected to raise yourselves out of the groove, and go forth and study nature in her inviting fields.

By the act of the Faculty and Trustees of Rush Medical College, you are this evening raised to a higher plane than that on which you have traveled hitherto! You are placed on a level with the most gifted. You now start abreast with the most favored in this land. On you now devolve new duties and responsibilities. Said Lord Bacon, "I hold every man a debtor to his profession, from the which, as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

All that is worth striving for is before you. Your success will depend mainly upon your own exertions. Though you possess brilliant talents—genius, even—rely not on these; industry and perseverance are far more certain guaranties of success. To my knowledge, you have been faithful students. Let not the fatal notion take possession of your minds, that now study is ended; your application, on the contrary, should be redoubled. Keep in mind ever the allegory of the hill of science, press onward and upward, give way to no relaxation till your feet stand on elevations high as man has ever trod. Otherwise, your progress will be like the Arctic explorers on the ice-belt, who, while they walked ten miles toward the pole, drifted twelve toward the equator.

Demosthenes being asked the first requisite of the orator, replied, "action;" the second, "action;" the third, "action." Were I to define the requisites of the successful physician, it would be, read, read, read. Buy books and read them, then buy more books. True, some will prove well nigh worthless, but you will soon learn to distinguish fine gold from dross.

Gentlemen, for these many weeks we have floated delightfully together on the placid stream of time. To-night we drift apart, each to fill the space society may yield to him. You go hence bearing with you the kindest wishes and benedictions of the Faculty for whom I speak. We will ever rejoice in your success; we will ever sympathize with you in your trials.

Plato says, "Truth is the beginning of every good to the gods, and of every good to man; and he who would be blessed and happy, should be, from the first, a partaker of the truth, that he may live a true man as long as possible, for then he can be trusted."

From you we expect but one report. That in every relation of life—whether as men, as physicians, or as citizens—you have been *true* to yourselves, to the profession, to all.

I must not detain you longer. I would avoid the word

> "Farewell, a word that must be—and hath been
> A sound that makes us linger—yet, Farewell."

ARTICLE II.—*Myelitis.* By WALTER HAY, M.D.

M. P.; æt. about 65; physician, in active practice many years. First seen, by request of Prof. Rea, Nov. 30, 1873. Had been visited incidentally by several eminent medical gentlemen, and prescribed casually for himself during the two months of his confinement to bed, but appears to have had no systematic treatment. Has received the impression from some of these that his case is one of locomotor ataxia; and has received, also, numerous hypodermic injections of morphia to allay pain, which, however, were unsuccessful.

Patient's mind being in an exceedingly unstable condition, it was impossible to obtain an intelligible history of the case.

Symptoms, at present, are great mental instability, resembling hysteria, characterized by alternations of outcries, groans, prayers, and imprecations, with diminution of attention, ideational incoherence, and failure of memory, expressing, in their totality, incipient senile dementia. Heart's action a little excited; arterial tension a little diminished; pulse rate, 72. Temperature normal; hygrometric condition normal. Cutaneous sensibility slightly increased over chest and abdomen, normal over all of the extremities, objectively; has "prickings of pins and needles in the soles of the feet and legs." Pain agonizing; throughout the lower extremities intermittent and lancinating; through the diaphragm and lower thoracic region continuous and intense, described as an iron band crushing his chest; involuntary respiration being somewhat impeded thereby, is supplemented by voluntary muscular action. Pain unaffected by movements of the body, which he attempts frequently, and accomplishes by means of his arms, with the assistance of an attendant.

Pupils are contracted, and tongue dry, red, and fissured.

Motility lost in the left lower extremity altogether, preserved to a slight degree in the right in adductors of thigh, in upper extremities unimpaired.

Bladder and rectum paralyzed; sphincters normal; urine dribbling constantly.

Special sensation unimpaired; pupils contracted; conjunctivæ injected; reflex irritability in lower extremities increased.

Removed, by means of the catheter, about a quart of highly alkaline urine, loaded with ammoniacal phosphates; no attempt

having been made to evacuate the bladder previously. Ordered—

Potassii Bromid., - - - - - - - - - grs. xv.
Aquæ Destil., - - - - - - - - - - oz. ss. M.

every four (4) hours, and atropiæ gr. $\frac{1}{60}$ every eight (8) hours.

Dec. 1. Had passed the night as usual, suffering frightfully. Bowels evacuated, the first time in ten days. Removed about twenty ounces from the bladder. Ordered—

Potassii Bromid., - - - - - - - - - grs. xxx.
Aquæ Destil., - - - - - - - - - oz. i. M.

every four (4) hours; atropiæ granules, gr. $\frac{1}{60}$ every four (4) hours; beef essence and milk *ad lib.*; occasionally a little sour ale to quench his thirst.

9 P. M. Removed similar quantity of urine. Continue treatment. Pain had ceased, except in left sciatic nerve, and respiration was freer.

Dec. 2, 9 A. M. Found patient narcotized; at 4 A. M. had been seized with hiccough, and had called in a neighboring practitioner, who had "passed a catheter, but found no urine in the bladder, and had given pulv. opii, gr. j; gum camphor, gr. ij, in two pills."

Upon inserting catheter was more fortunate than the previous operator, finding about a pint of ammoniacal urine. Ordered treatment continued, and requested consultation with Profs. Allen and Gunn, who, at 4.30 P. M., found narcosis continuing, and were convinced that a much larger quantity of opium than the alleged "one grain" had been taken.

These gentlemen, after careful examination of the case, sustained my diagnosis of chronic myelitis in its later stages, but, considering it essentially hopeless, made no suggestions for treatment.

As there were no evidences of pain, reduced doses of medicine to one-half, as before.

Death ensued Dec. 7, nothing noteworthy occurring in the meantime.

The only point of interest in the case being its diagnosis—the prognosis being hopeless—it is published simply because it has already been reported as a case of locomotor ataxia.

The diagnosis rests upon the tripod: paraplegia, without anæsthesia; cramp--painful spasm—of the diaphragm, indicated by sense of constriction around lower portion of thorax; and alkalinity of urine.

No. 122 South Sangamon St.

ARTICLE III.—*A Case of Paraplegia, from Peripheral Irritation.*
By G. W. STEWART, M.D., Muscatine, Iowa.

In May, 1872, while serving as county physician, I was called to the county poor house to see an inmate, Maggie O——, aged 18, who complained that she could not pass her water.

I introduced a catheter, and evacuated the bladder of its contents, only about four ounces of very highly colored urine. Upon inquiry, I learned that a larger quantity had not been passed on any one day for a period of a month, and on some days the quantity was even less.

She complained of some pain, though not intense, over the region of the kidneys, and since the inability to pass her water had existed, (a period of twenty-four hours), there was in the neigborhood of the bladder a burning or tingling sensation, more or less constant, and most marked when she attempted to pass her water.

Upon inquiry, I learned that she never had been robust, and discovered that she was of a scrofulous diathesis, having had, in fact, a few years previous, a scrofulous ulcer in the glands of the neck, the characteristic cicatrix of which, with puckered tissues bordering the same, being particularly noticeable.

Continuing my examination, I subjected the urine to the heat and nitric acid tests for Bright's disease; examined it with the microscope, and tested its specific gravity. Chemical tests revealed little (*i. e.*, tests tried) as to the real character of its sediments observed, and its high color, showing neither albuminuria, nor a diminution of urea; but the microscope presented to view blood corpuscles, and casts cylindrical in form, and evidently from the convoluted tubes. Specific gravity normal, 1020.

Subsequent to this, I repeated frequently the same tests, and several times with like results. However, at a later period, the specific gravity was lower.

TREATMENT.

Not recognizing, for some time, any connection or relation existing between the paralysis of the bladder, and partial paralysis of the sphincter ani and muscles of lower extremities which followed, on the one hand, and that of the desquamative nephritis on the

other, I prescribed as though they were separate affections; administering, for the first, strychnia, beginning with $\frac{1}{60}$ of a grain, three times daily, and increasing gradually to $\frac{1}{8}$ of a grain; for the second, I endeavored to relieve the kidneys from active duty by stimulating the skin and bowels to eliminate in an increased degree fluids from the body, administering, for the purpose, diaphoretics and cathartics, using of the former, nitrate of potash and Dover's powders, the latter of which served also to allay pain and inflammation in the kidneys. As cathartics, I used the salines; at the same time directing that the patient be kept unexposed to cold or moisture, and that she take at intervals of from two to three days a hot air bath; her diet to consist of milk and broths.

This course of treatment I followed for a period of six weeks, the first two of which saw in our patient some improvement, the quantity of urine being greater, of a better color and general appearance; and the bladder responded to the stimulation it received —as I at that time thought through the influence of the strychnia —and voided urine for a few days quite naturally. But after a few days, seeming to have become acclimated, so to speak, to the remedial agents used, the case changed fronts, not only ceasing to improve, but became worse; the quantity of urine passed diminishing, and the paralysis intensifying and extending to other parts than that hitherto affected, when we had a completely paralyzed bladder, sphincter ani and muscles of the lower extremities partially so.

Our patient having become by this time quite considerably debilitated by the action of cathartics and the disease combined, I dropped, for a time, the former, and administered in their stead, tonics. And having given, as I thought, the strychnia a fair trial, with no apparent benefit, I dropped it, and took up electricity, administering it first directly to the bladder by placing one pole of the battery in the stream of urine as it was voided through a catheter, making it (the urine) conduct the current directly to the bladder, and the other pole, placed over the spinal column, completed the circuit.

This operation was performed daily for another six weeks, with no apparent change, except, now and then, some dribbling of urine. There being no improvement, I did not feel much encouraged, and my patient was still less so, and refused to do anything further in the way of treatment.

At about this time, I read before our County Medical Society a history of her case, in which I expressed surprise that uræmia had not manifested itself, considering the long duration of the disease, and the limited amount of urine passed (about four ounces per day); expressing the opinion that it would seem as though she must be a malingerer, at least so far as the quantity of urine voided was concerned; that it would seem impossible for so small an amount of urine to be passed for a period of three months without uræmia declaring itself; yet, having faith in the moral integrity of my patient, I could hardly believe her to be a malingerer. However, I directed that she be closely watched, which was done, I thin k, faithfully by a person of undoubted integrity, but she could not be caught practicing or attempting to practice deception.

Never having seen laid down in the books any method by which one could determine, independent of the testimony of a patient, whether or not a bladder was paralyzed, or whether an inability on the part of the patient to urinate really existed, I was at a loss how to proceed further, but being frequently at the poor house, I one day introduced into my patient's bladder a male catheter, having the instrument curved to about the extent it would be when used in a male. I then attempted to rotate the instrument, which I found could be done, in which case the inner extremity would be made to describe a circle. To do this with facility, as in the present instance, the bladder must needs be in a state of at least partial distension; and, being able to rotate the instrument as well with the bladder empty as when it contained urine, I concluded that the organ was paralyzed, and that I had discovered a method of diagnosis, new, at least to me, by which I could determine in such cases whether a bladder were or were not paralyzed. I have since, on a number of occasions, tried the plan, and it has operated, as at first, to my satisfaction.

In the meantime, the case being left to itself, uræmia speedily declared itself, and the paraplegia was intensified; vertigo, dimness of vision at times, and irritability of the stomach being present, accompanied by the almost complete loss of power in muscles of lower extremities.

At this juncture, our patient wished me again to take her in charge, which I did, though with little hope of doing her any permanent good.

I put her upon diaphoretics and cathartics, using elaterium; tried again strychina, and followed the same hygienic and dietetic treatment adopted at first.

Upon this line of treatment our patient improved from the first, and, at the end of two months, there being an absence of the more marked symptoms of uræmia, the kidneys acting with a considerable degree of vigor, with a complete absence of all paraplegic symptoms, our patient thought sufficient had been accomplished, and desired no more treatment, and, accordingly, she received none.

After the lapse of two months, however, there was a return of all the old symptoms of pain over the kidneys, a burning or tingling sensation of the bladder, scant and highly colored urine, containing blood corpuscles and casts, with paralysis of the bladder. I pursued the same course of treatment for the kidneys as before; but noticing that throughout the history of the case the two conditions of nephritis and paraplegia moved together; that, where the former attained its acme the latter did also; likewise, when there was an amelioration in the symptoms of the former, there was also an amelioration in those of the latter, I came to the conclusion that a relation existed between them, and that the latter was produced by the former; therefore, I left the paraplegia entirely to itself. I believed that the paraplegic condition was due to peripheral irritation, set up by the diseased kidneys by or through reflex action of the spinal cord; and that the requirements were to direct my treatment principally to the kidneys.

This I did, ignoring altogether at first the paraplegia, and the case began to improve, and continued to do so, as it had at a previous time, until there was an absence of the more marked symptoms of uræmia, an increase in the amount of urine, an improvement in general appearance of the secretion, which showed again a specific gravity but little below healthy, a marked improvement in that particular; also, the paraplegic condition showed a marked improvement, the bladder voiding urine quite naturally but not perfectly, with the sphincter ani and muscles of lower extremities responding to stimuli, and acting with their wonted vigor.

Here the case seemed to halt, and, a little out of curiosity, I tried again by turns, with no other treatment, strychnia and electricity; but no improvement by that means could be brought about

in the action of the bladder, and I became more than ever convinced, that until a cure could be found for uræmia, the bladder, in this case, could not be made to act in a degree perfectly normal.

The case has passed out of my hands, but remains about as I left it a year since.

ARTICLE IV.—*Case of Monstrosity.* By F. E. ENGLISH, M.D., Altoona, Polk Co., Iowa.

The following notes were handed me by my father, R. George English, M.D., of Des Moines, Iowa, and as the case is one the like of which is seldom met with, I concluded to submit it for the consideration of the readers of the JOURNAL, if thought worthy of a place therein.

"Case. Called at 9 o'clock P. M., Nov. 4th, 1873, to Mrs. R. L., aged 24 years; fine physical organization; rather above medium size, and in good health. Primapara; said her term of gestation had not expired by about two weeks; had had premonitions of labor, however, for twenty-four hours, and at present decided uterine contractions declared the fact that her delivery could not be far in the future. A very noticeable feature in the case was the enormous distension of the abdomen; digital examination revealed a capacious pelvis, complete dilatation of the os tincæ, and at every uterine contraction the membranes descended unusually low, and yet at no time previous to their rupture could a presentation be detected. The rupture was followed by a most extraordinary flow of liquor amnii, not less than ten certainly, and perhaps as much as twelve, quarts, followed by a rapid decrease in the size of the abdomen, soon after which a presentation was detected, but what was it? Vertex, breach, shoulder, elbow, knee, or footling, for my life I could make no satisfactory diagnosis. The old homely adage occurred to me, —'Feeling is believing, but seeing is the naked truth,' but I was scarcely able to form an intelligent belief; diagnosis failed me. The digit came in contact with an aperture scarcely large enough to admit the point of the finger, surrounded by irregular elevations and depressions upon a bony surface. No such presentation had

ever occurred in the course of my somewhat extensive practice, covering a period of more than a score of years, and I was forced to admit (to myself, of course,) that I did not know what even to reasonably anticipate; but having full confidence in the ability of my patient to meet all the requirements of the labor, even to its completion, I could well afford to wait, and after neither a very hard nor yet a protracted labor my patient was delivered of a female baby, well developed in every respect, except the head, neck, and upper portion of the spinal column. The mouth was small and pouting, the eyes were well enough developed, but above the supra-orbital plates there were no cranial bones; the ears were well formed and in their normal positions, a belt of scalp extending, as it were, across the upper end of the body and covered with black hair which curled beautifully around each ear. As the neck was entirely wanting, the sternum extended to near the chin, which seemed to rest upon its superior extremity, and formed a point farther than any other from the lower extremity of the body. From the supra-dorsal (the cervical vertebræ were wanting) to about the middle of the lumbar region of the spine, that column presented three instead of one ridge or row of processes, the central having nearly the normal appearance, while the right and left lateral were irregularly curved outward and upward as the body lay on its anterior aspect. Situated at the superior extremity of this triple column, and upon its posterior aspect, was a small quantity of brain substance, resembling the cerebrum. The cerebellum and medulla oblongata were not discoverable."

This was the condition in which nature ushered into the world a human being, as is seen from the above notes. All the contents of the encephalon were entirely wanting, except a rudimentary cerebrum; and that the fœtus was living to within a short time of its birth is evident from its almost perfect bodily development, as well as the evidence of motion felt by the mother a few moments prior to its birth. The thoracic and abdominal viscera were not examined, but to all external appearances were well developed and perfect.

My object in making a report of this case, in the first place, is, its rare occurrence, and second, to invite the views of others in regard to this class of cases. One point I wish to arrive at is, upon what physiological principle can the want of development of so

important a part of the body as the head, be accounted for? or can it be accounted for physiologically at all? I am aware that the members of our profession are loth to believe, and in fact almost entirely discredit, the influences that are commonly considered as the cause of the so-called "birth marks." Are we authorized to entertain the belief that there are scientific causes why the process of development should be arrested in some part of the fœtus in utero, and the full and perfect work completed in the remaining parts? In the case before us there seems to have been an overwork performed in the one part, (the triple row of spinal processes), and an entire absence of others, (the cranial bones, with a part of their contents.) Have the influences brought to bear on the mind during the period of gestation anything definite to do in controlling the development of the fœtus in utero? If this be conceded, another very important query arises, What class of emotions will arrest or retard the perfect formation of an arm, leg, finger, or toe? and what to prevent the development of brain, bone, etc., etc.? or what to produce a supplemental member, as a finger or toe? Have these queries a satisfactory solution in science, if we but had the key?

Progress in Medical Sciences.

ARTICLE I.—*Neuro Pathology and Psychological Medicine.* By WALTER HAY, M.D., Adjunct Professor Theory and Practice, Lecturer on Diseases of the Brain and Nervous System, in Rush Medical College.

1. *Mendel on Typhus and Diseases of the Mind.* (Berliner Medizinischer Wochenschrift, Sept. 23, 1873. London Medical Record, Nov. 19, 1873.)

2. *Eulenberg on Lesions of Innervation apparently due to Ill-Usage.* (Berliner Klinische Wochenschrift, Sept. 23. London Medical Record, November 19, 1873.)

3. *Vertigo ab Aure læsa,* La Maladie de Meniere Clinique Medicale. Hospice de la Salpetriere. M. CHARCOT.

4. *Recherches Experimentale sur la Physiologie et la Pathologie Cerebrale.* Par le Docteur DAVID FERRIER, Professeur de Medecine Legale au King's College de Londres: Le Progres Medicale.

5. *Accommodation for the Insane on the Cottage Plan.* By WINTHROP B. HALLOCK, Assistant Physician to the Connecticut Hospital for the Insane. (New York Medical Journal.)

1. Dr. Mendel considers the relations between typhus fever and insanity from three points: (1.) The differential diagnosis; (2.) Typhus as a cause of insanity; and (3.) The influence of typhus upon existing brain disease.

(1.) The diagnosis must be established by the thermometer; the characteristic temperature—curves of typhus—rising in the morning from 37° to 38.5°, and in the evening from 40° to 40.7° (cent.)—do not appear in brain diseases.

(2.) Typhus, more frequently than other acute diseases, causes insanity, in consequence of the psychical and special organic changes accompanying it. The cases generally recover, although hallucinations may persist after the re-establishment of normal temperature. The brain symptoms occurring at the close of an attack of typhus are more urgent, and may take the form of the transitory delirium of inanition or collapse, or that of gradually developing mental disease, ending frequently in destructive lesion of the brain and consequent dementia.

The proportion of violent cases of insanity thus originating is estimated, variously, by Nasse, Schlager and Jacobi, at 2.3, 4.4 and 12.3 per cent. respectively.

(3.) Mental disease has occasionally been cured by an intercurrent attack of typhus. Bach saw ten out of eleven, and Schlager six out of eleven cases, so recover; apparently resulting from anæmia occasioned by a diminution in the circulation in the membranes of the brain. These recoveries, however, are generally temporary.

2. Dr. Eulenberg exhibited to the Hufeland Association a child eleven years old, who had been maltreated at school by blows on the head, plucking out the hair, etc., the result being epileptic vertigo, great pain in the occiput, hyperæsthesia of the nerves of sensation, etc. There were bald spots upon the scalp, which after tonic treatment and shaving, were replaced by snow-white hair, the whiteness depending on absence of pigment. Moritz Kohn speaks of alopecia areata as a trophic neurosis, as shown by its

heredity, its sudden appearance and disappearance, its extension peripherally, and its connection with other nerve lesions.

Wilson saw a case where neuralgia of the head preceded the area. Wyss saw one in a boy who was taking arsenic; but on stoppage of the medicine the area vanished. Cusp, Todd, Anstie, and others, have noticed alopecia in nervous diseases. Eulenberg reports a case of right-sided supra-orbital neuralgia, with the eyebrow white over the supra-orbital foramen, and a corresponding streak of hair on the head whitened.

3. M. Charcot, the lecturer, calls especial attention to certain symptoms which while differing from those usually present in this disease, he regards as pathognomonic. These are, first, the intermittent or rather the paroxysmal character of the vertiginous attacks, their anticipation by a loud whistling (like that of a locomotive) noise in the ear, and their sudden cessation. Triquet, Saissy, Viricel, Trousseau, and Meniere, have all associated the vertigo with noises in one or both ears; they have referred to them as continuous. Charcot insists that the vertigo manifests paroxysmal exacerbations, invariably preceded by the loud sounds, which cease with its access in recent cases; these troublesome symptoms sooner or later being relieved by the supervention of deafness.

Another symptom upon which the lecturer dwells with emphasis, is the sensation (subjective wholly) of rotation, either upon a transverse axis (trapeze movement) or upon a vertical one. These subjective sensations frequently result in the fall of the patient.

He suggests, moreover, as the results of his own experience, the application of the actual cautery to the mastoid process.

4. This new series of experiments to determine the functions of different portions of the brain, confirms, for the most part, those already performed. Thus, for example, irritation of the middle external convolution, behind the furrow limiting the frontal region, induces elevation and retraction of the right ear, and elevation of the lower eyelid. A little in front of this point, irritation induces a drawing upward of the right cheek, forced contraction of the eyelids, and especially depression downward and outward of the right eye.

Irritation of the gyrus sigmoid behind the crucial furrow induces elevation of the right shoulder, with a slight movement—adduction—of the right fore paw, (of the cat), followed by choreic movements of the same parts during one or two minutes, being simply rapid repetitions of the original movements.

Irritation of the parietal regions induced rotation of the head. Irritation of the recurved portions of the external convolutions induced no movements, but extorted cries of pain.

Irritation of the anterior extremities of the infra- and supra-sylvian frontal convolutions induced the opening of the mouth, its seizure with clonic convulsions, and the projection direct forward of the tongue, the animal crying with anger and pain, and agitating his tail. Movements made so distinctly and so frequently indicated clearly the region in which they were centralized.

These movements were reproduced exactly, after the induction of profound stupor by chloroform, though without the cries.

Irritation of the posterior region of the fissure of Sylvius induced instant and violent closing of the jaws, which could thus be opened and closed alternately by irritation of the first or second region.

One of the electrodes being placed at the anterior extremity of the external superior convolution, and the other at the orbital extremity of the last frontal, and of the supra-sylvian convolutions, the head was thrown back, the jaws opened convulsively to their whole extent, and the tongue moved as before.

Similar experiments resulted thus:

(1.) The electrodes applied to the sigmoid gyrus of the frontal division of the external frontal convolution, induced *adduction of the fore paw from the right side.*

(2.) The electrodes moved a little forward upon the same gyrus, induced *elevation of the right shoulder, adduction of the right paw, with extension of the great toes. The hind paw of the right side was also bent and drawn forward.* The cessation of the stimulations, after several repetitions, was followed by a unilateral epileptic attack, characterized by spasms of the right eyelids, elevations of the right shoulder, and convulsive erections of the tail.

(3.) The electrodes at the extremity of the horizontal division of the crucial furrow, induced *rotation of the head toward the right shoulder.*

(4.) Electrization of a point upon the anterior limb of the sigmoid gyrus of the superior external convolution, induced immediately elevation of the right eyebrow and eyelid.

The intensity of the current was only such as permitted the electrodes to be borne at the tip of the tongue without pain.

(5.) Electrization of the posterior extremity of the frontal division of the middle external convolution, induced forcible closure of the right eye, and attraction of the head to the right.

(6.) Electrization of the middle of the same convolution, induced *results similar to the last.*

(7.) Electrodes being advanced a little upon the same convolution, *induced same effects.*

(8.) Applied to posterior extremity of the frontal division of the external inferior convolution, *with same result.*

(9.) Applied to superior external convolution, behind the sigmoid gyrus, *the tail was first moved from side to side, then elevated, and remained rigid. Contractions of the external muscles of the right thigh occurred.*

Here ensued an epileptic attack, with convulsions limited to the muscles involved in the experiments.

(10.) Electrization of the external superior convolution, at a point behind the caudal nervous centre, elicited only outcries of pain.

The analysis of these observations will be continued in a future number of the JOURNAL.

5. Dr. Hallock objects, with good reason, to the accumulation of large numbers of insane patients in single buildings, but urges the advantages of providing detached buildings of small size—cottages, so called—to accommodate thirty patients each, under the care of two attendants.

The advantages are asserted to be, diminished cost of construction and also of maintenance, whereby provision could be made for a much larger number of insane than by the present costly system; and this is a strong point in the Doctor's argument—the proportion of insane being estimated to be one in 1,700 annually, of which number one-fourth need hospital accommodation (this estimate seems very small.)

Another advantage claimed is, economy of space and labor. All

these, of course, are important, and yet entirely subsidiary to the improvement in hygiene, in facility of management, and in prospect of recovery thereby secured. The plan is apparently an effort in the right direction, and, while liable to objections, has sufficient advantages to entitle it to a fair trial, more especially as it migh be made without essential alteration in the annual estimates for these charities, or in the personnel of their administration.

The ordinary mode of consigning diseased brains to the almost exclusive association of other diseased brains, has in it an element of absurdity, when their curative treatment is kept in view; and while removal from their accustomed surroundings, and the supervision of expert care is essential to the curative treatment of the insane, it seems that we have by no means accomplished the best for them when we shall have consigned them to a large asylum for lunatics.

ARTICLE II.—*Report on Obstetrics and Gynæcology.* By A. REEVES JACKSON, M.D., Lecturer on Gynæcology, Rush Medical College, Chicago.

1. *Fortnightly Hemorrhage during Pregnancy.* By Dr. S. HAYNES. (Brit. Medical Journal, Nov. 29, 1873. American Journal of the Medical Sciences, Jan., 1874.)

2. *The Forceps in Midwifery.* By Dr. JAMES MOORE. (London Lancet, Jan., 1874.)

3. *The Influence of Malposition of the Uterus upon Sterility.* By Dr. HERMANN BEIGEL.* (Obstet. Journal of Great Britain and Ireland, Feb., 1874.)

1. That a sanguineous discharge, having a rhythmic character, may occur during pregnancy, is now admitted by all obstetricians. It is also certain that such cases are not so exceptional as was formerly supposed by most authors. In 1858, Dr. Elsasser published† a contribution upon this topic, founded upon fifty cases, extracted from the records of the Stuttgart Lying-in Hospital, and

* Ueben den Einfluss der Lagereranderugen der Gebarmutter auf die Sterilitat, von Dr. Hermann Beigel.

† Monatschrift fur Geburts—Kunde. Bd., 73.

said to rest upon the most accurate information. In the fifty cases the discharge occurred in the following manner; once in eight, twice in ten, three times in twelve, four in five, five in six, eight in five, and nine in two. The peculiarities of the rhythm were inquired into in thirteen of the cases. It occurred regularly every four weeks in four, every sixth week in one, and in the others it is not clearly stated. In one case it appeared first in the middle of gestation, and henceforth came on every four weeks, lasting each time three or four days.

The particulars of Dr. Haynes' case were read before the Worcester Medical Society. The patient had eight children, all carried to full time, and born alive, perfect. In all her pregnancies there had been a hemorrhagic uterine discharge, more profuse than her menses, (which were normal in quantity and quality), but of exactly the same nature, every fortnight up to the sixth month, whence, until labor, there was no loss. Each of these discharges was preceded by a few days very severe headache, and was accompanied by severe dorsal pain, and bearing-down sensations. She never had any leucorrhœa. When not pregnant her catamenia were regular, recurring monthly. An abundant bloody discharge, occurring every fortnight, was therefore her test of pregnancy.

Treatment, position and rest had no influence in lessening the amount of the discharge. She does not lose much after confinements, and she presents none of the ordinary indications of the hemorrhagic diathesis.

Dr. Elsasser, in commenting upon the cases reported by him, states that these discharges take place more frequently during the first half of pregnancy, and especially in the early months of this, than during the latter half.

The nature and source of these anomalous discharges have been the subjects of much variance of opinion. If the prevalent theory, which regards the menstrual flow as dependent upon, and an epiphenomenon of ovulation, be correct, then we must look upon these cases as pathological rather than physiological. If, however, as some still maintain, menstruation, or the menstrual flow, is nothing more than a periodical hemorrhage from the lining membrane of the uterine body, not caused by, or necessarily connected with the maturation and dehiscence of the ovule, then we may consider these cases as normal, although exceptional in their character.

During the early months of pregnancy, prior to the occlusion of the cavity of the body of the uterus by the contact and coalescence of the decidua vera and reflexa, there can be no difficulty in understanding that the discharge might proceed from its usual source, the lining membrane of that portion of the organ. This occlusion does not take place until the third month, and prior to that time, the open state of the fallopian tubes and of the cervix uteri present no more obstacles to the exit of the discharge than are present at each ordinary menstrual period.

Dr. H. R. Storer* and Koeberle† have each published a case, in which both ovaries and a large portion of the uterus were removed, yet, in that of the former there appeared, twenty-six days after the operation, a sanguineous effusion, attended by the usual accompanying sensations of menstruation, and in that of the latter "there was no interference with the menstrual flux." Therefore, if a small portion of the cervix uteri may be sufficient to furnish a regular persistent bloody discharge, we may find in the fact a solution of at least some of the cases in which such discharge has been said to continue throughout the entire period of utero-gestation.

2. Dr. Moore maintains that obedience to the rule of the older teachers, that the use of the forceps should not be had recourse to so long as the fœtus makes *any* advance, is fraught with evil both to the mother and child. He avers that the cases assisted by the employment of the instrument get about sooner and feel better than the unassisted ones do, and that by its "more frequent and more timely use we would not only lessen the maternal and infantile death rate, but by eliminating all or most of the causes of death and other pathological states, we would bring our patients nearer a healthy standard of recovery."

He concludes by enumerating the classes of cases in which he thinks it justifiable and obligatory to use the forceps, as follows:

(1.) In *all* cases where the first stage of labor is completed and the head stationary in a position favorable for their use. Under these conditions he would not wait longer than two hours.

* *American Journal of the Medical Sciences*, Jan., 1866, p. 110.

† Liegois on the "Function of Reproduction," Paris, 1869.

(2.) In cases where, though the head is advancing, the labor is tedious, from the fact of the pains being too weak or having almost ceased.

(3.) In cases where the pains are stronger than is warranted by the advance made.

(4.) In hemorrhage, if excessive; and in some cases of convulsions.

(5.) In cases, favorable for operation, where the patient is very desponding or impatient.

(6.) In cases of a tedious nature where there is a rigid fourchette or a lengthened perineum, especially where the pains are not steady in rhythm and force.

(7.) In cases of occipito-posterior positions, unless the labor is advancing quickly.

(8.) The second twin, if a head presentation, and not advancing quickly after the first.

(9.) To save time, if the case is favorable for forceps. In such cases, Dr. Moore does not scruple to use the means at his command, of relieving the woman from travail and himself from work.

3. Dr. Beigel bases his paper upon examinations, made by himself, of 125 sterile women. In 114 of these it was not difficult to assign the cause of the sterility; 34 had some form of malposition of the uterus; 26 had versions; 12, flexions; and 2, prolapsus. A deviation of the uterus from its normal position, whether flexion or version, does not, in itself, cause any impediment to conception; yet such a malposition may render it difficult, since it prevents the onward movements of the spermatozoa. This impediment is not, however, necessarily one which cannot be overcome; but it is otherwise, when, as is not seldom met with in flexion, the anterior lip of the os is longer than the posterior, and is so firmly fixed against the posterior wall as more or less to block up the passage, and thus form a barrier to the advance of any foreign body. Therefore, we must not so much consider the degree of the version as the determining cause of the sterility, as the relation of the lip of the os to the anterior or posterior wall of the vagina, according as we have to do with retro- or ante-version. Likewise, a pronounced bend in the uterus does not *per se* necessitate sterility, for the canal of the uterus may still be permeable; but sterility follows when the flexion is such that the two walls of the cervix, or

of the uterus, are in contact, so that the canal is quite closed. It is in such cases as these that the sterility persists so long as the position of the uterus is such as to close the canal. The author therefore considers that the only rational treatment is to replace the uterus in its normal position. For this purpose he has used, with advantage, an intra-uterine pessary of the following form: It consists of an india-rubber ball, to which a perforated uterine stem is fixed. It is introduced by passing the sound through the tube and the india-rubber ball. After it is in position, the ball is blown up to its proper size, and the tube from it is fixed to a girdle.

ARTICLE III.—*Progress of Surgery.* By JNO. E. OWENS, M.D., Lecturer on Surgery, Rush Medical College, Chicago.

1. *Ovariotomy.* By Mr. SPENCER WELLS. (A Biennial Retrospect of Medicine and Surgery for 1871-72. New Sydenham Society, 1873. British Medical Journal, Dec., 1872.)

2. *Ovariotomy on a Child.* By Mr. ALCOCK. (London Lancet, December, 1871.)

3. *Ligation of Pedicle in Ovariotomy.* By Dr. HAYES. (Dublin Quarterly Journal, Nov., 1871.)

4. *Ovariotomy on a Child.* By Dr. W. BARKER. (Philadelphia Medical Times, Nov. 1, 1871, American Journal of the Med. Sciences, Jan., 1872.)

5. *The Present State of our Knowledge of the Pathogenesis of Tumors.* By Prof. S. D. GROSS. (American Journal of the Med. Sciences, Jan., 1874.)

6. *Esmarch's Method of Preventing Hemorrhage During Operations.* (London Lancet, Oct. 11, 1873.)

7. *Growth of Cicatrices.* By Mr. W. ADAMS. (The Practitioner, London, Jan., 1874.)

8. *Treatment of Strangulated Hernia by Aspiration.* By Mr. DUBREUIL, (Medical Times and Gazette, Nov. 22, 1873. The Practitioner, London, Jan., 1874.)

1. Mr. Spencer Wells has lately ("Med.-Chir. Soc.," Nov. 1872) completed the analysis of 500 cases of ovariotomy performed by him. In 25 cases both ovaries were removed at one operation; and there were four cases where ovariotomy was performed twice

on the same patient. The subsequent history of patients who recovered after removal of one ovary proved that they might menstruate regularly, and might bear children of both sexes, or twins; and that, after removal of both ovaries, they did not become excessively fat, nor lose their feminine appearance or sexual instinct.

Of 373 women who recovered, 36 who were unmarried at the time of the operation had married since. Of these, 15 had had one child, 6 two children, 3 three children, 3 four children, and 2 had had twins. Of 259 who were married when the operation was performed, many being beyond the age of child-bearing, 23 had had one or more children since; 17 had died of causes more or less directly connected, and 19 of causes not at all connected, with ovarian disease or the operation, at various periods from a few weeks to eight years after ovariotomy. Mr. Wells stated that unilocular cysts often disappeared after a single tapping. They were frequently not ovarian at all, but connected with the parovarium or broad ligament. His views as to early operations had become modified from those which he at first held. He had found that the results of operations on small tumors in healthy persons were not so favorable as in cases where the cysts were large, and the patients had become accustomed to disease. He did not think it right to remove small ovarian tumors, unless they caused great pain and inconvenience to the patient.

2. Mr. Alcock operated on a child three years old. The tumor was universally adherent. The patient died at the end of forty-eight hours.

3. Dr. Hayes recommends a method for securing the vessels of the pedicle (ovarian), which he calls "the subperitoneal."

The proceeding resembles the subcutaneous ligature of nævus. The pedicle is first compressed by a clamp, and a needle, armed with a stout catgut ligature, is passed beneath a good thickness of the serous surface of the pedicle, but superficial to the principal vessels. The needle being withdrawn at the side opposite the point of entrance, is again passed into the aperture of exit, and pushed between the vessels and peritoneal covering on one side of the vessels opposite its first passage, until it can be withdrawn

through the opening made by its first entrance. The ends of the ligature are to be strongly tied and cut off short.

4. Dr. W. Barker has operated on a child aged six years and eight months. The case was one of dermoid cyst of the right ovary. The patient recovered.

5. Prof. Gross thus concludes a paper on "The Present State of our Knowledge of the Pathogenesis of Tumors:"

"All our views in regard to the pathogenesis of tumors are hypothetical, and rest on no solid foundation. No one has hitherto seen, for example, the cell of carcinoma originate from the stable connective-tissue corpuscle, epithelium, or the wandering cell. Conclusions are drawn from the representations afforded by dead tissues; and it is not probable that direct observations will ever be made on this point. Hence it is the duty of the impartial critic to examine the immense mass of enticing views that have been brought forward for the support of the various theories of the development of morbid growths, and adopt that which strikes him as being the least objectionable. Were I disposed to confine myself to a single hypothesis, I should advocate the doctrine that the wandering or mobile connective-tissue cell is directly transformed into the tissues which enter into the composition of the neoplasms; not by any independent action of its own, but by the law of analogy of formation. The adoption of such a theory is, however, scarcely warranted by the present unsettled state of our knowledge; so that I am led to sustain the more conservative views of many distinguished observers and experimenters, who teach that all the cells of the organism, whether fixed or mobile, epithelial or connective, investing or secreting, lend their aid in the development of tumors, but with the restriction, on my own part, that the migratory cell is principally concerned, as in the inflammatory process. In other words, the genesis of morbid growths is characterized by the hypernutrition and multiplication of the masses of protoplasm influenced by it, which are, as a rule, direct productions of the vascular and connective-tissue systems."

6. No ill effects of any kind have hitherto been observed (in London) from the use of this contrivance. Although the duration

of the operations has varied from a few minutes up to half an hour, and even more, during the whole of which time the circulation has been completely arrested, no evidence has been afforded of the formation of emboli or thrombi in any cases. But it is one of the possible evils of the device that the prolonged pressure on the vessels and complete stoppage of circulation may, under certain conditions, lead to the formation of a clot, which, on the re-establishment of the circulation, may be carried along the vessels, and arrested in some part of their course, giving rise to circumscribed inflammation or even gangrene. There is also considerable danger in applying the bandage over parts which are inflamed and suppurating, especially if decomposition be going on, lest some of the clots which are found in the blood vessels of the affected parts be detached and forced into the blood current. For such cases it would be well to employ, in addition, a modification of the plan which has been practiced at Edinburgh for the last two or more years, and which consists in suspending the limb for some minutes before the operation, so that the blood may gravitate downward. Then the bandage may be applied at the proximal side of the diseased parts, thus avoiding all risks of septic poisoning or of embolism.

7. Mr. W. Adams, in a paper read before the Medical Society of London, demonstrates that scars made in children grow with the general growth of the body. He exhibited casts taken at different periods of life, in some of which a growth of as much as an inch had taken place in the course of six or seven years. After deep wounds, or when a portion of skin has been destroyed, the cicatrix appears to be persistent through life. Although all cicatrices, at the time of their formation, are much less than the wounds from which they result, still if the wounds should be made in early childhood, the resulting cicatrix will be, at the completion of growth, very much larger than the original wound; but cicatrices of wounds made after the completion of growth maintain through life the same proportions. With regard to the wearing out of scars, Mr. Adams thinks that those scars only wear out which result from superficial cuts which do not penetrate fairly through the deep layers of the skin into the subcutaneous fat.

8. Mr. Dubreuil has recently read a report or paper by M. Dunlafoy on the treatment of strangulated hernia by aspiration. In this he relates twenty-seven cases, showing the great utility of this procedure in many cases and its innocuity in all. It is true it implies that a diseased intestine may be returned, but the same remark applies to the taxis. M. Dubreuil, in a discussion which followed the reading of the paper, stated that he could not accept all the conclusions of the author. He did not admit that aspiratory puncture should be the first means resorted to, believing that moderate taxis, which is always inoffensive, should first be tried; but he did not hesitate to recognize that aspiration constitutes a real advance in the treatment of strangulated hernia. Both M. M. Verneuil and Trilat also admitted that in certain cases aspiration is very useful, as when the strangulated hernia is complicated by effusion into the sac, the withdrawal of this liquid by aspiration much facilitates exact diagnosis, and allows of a hernia being reduced which had previously resisted numerous efforts by the taxis. This can be brought to bear directly upon the intestine, which is no longer marked by the presence of the liquid. Aspiration thus at once becomes explorative and curative. M. Trilat took the same view of the operation, but M. Lee stated his opinion that all that is necessary may be effected by means of a trocar. M. Verneuil pointed out that the evacuation of the liquid by a fine trocar is a matter of difficulty, whilst it is easily accomplished by aspiration. M. Despres, the irreconcilable adversary of aspiration, predicted for it a similar failure. In his opinion there is no other treatment for strangulated hernia than operating.

Hospital Reports.

Woman's Hospital of the State of Illinois. *Sub-Involution—Endometritis—Displacement.* By W. C. LYMAN, M.D., Assistant Surgeon to the Hospital.

In presenting the following abstract of cases treated at the Woman's Hospital, we wish to state that we have taken a number of average or type cases of several forms of disease peculiar to women, and those that were treated long and connectedly enough to

arrive at some conclusion as to the length of time, the method, and the result of the treatment; leaving entirely out of consideration those cases that were under observation but a short time, and that were so irregular in attendance that no value can be placed upon the result, whatever it may have been.

We will first consider cases of sub-involution—five in number. Of these, the time that had elapsed subsequent to parturition varies from about three months to six years. The ages vary from twenty-three to thirty-five years; the average age, twenty-nine years. Length of time under treatment, from two to twenty months; average period, five months. Number of local applications, ranges from four to fifty-nine; average number, eighteen.

The method of treatment adopted in these cases was practically the same, and an abstract of the record on the hospital journal of one or more cases will sufficiently illustrate it.

Case 1. Mrs. M.; age thirty; thirteen years married; has had two children, the youngest about four years of age; has never been well since last confinement; at the present time is generally debilitated, dyspeptic, and has palpitation of the heart on slight exertion; pain in loins; copious leucorrhœa; inability to walk, except very short distances; menstrual function regular each three weeks, occasionally copious, and always painful for the past three years.

Physical examination showed the womb low down in the pelvis, os externum patulous, whole cervix apparently increased in size, and copious tenacious mucus bathing all parts within the field of the speculum.

The sound showed the uterine cavity nearly normal in direction, but three and one-fourth inches in depth, the canal of the cervix wide, and the os internum easily passed. The retraction of the sound was followed by considerable mucus, streaked with blood; a granular condition could be observed just within the enlarged and dilated cervix.

The local treatment in the case was begun by the application of nitric acid to the interior of cervix and body of the organ, followed by the application of glycerine, and a cotton ball pessary saturated with glycerine, to remain in contact with the cervix till the following day. The application was attended by some pain, and a slight hemorrhage, both of which subsided without any special treatment except recumbency.

This patient was treated twice weekly for two weeks with a solution of tannin in glycerine, one part to two, applied to interior of cervix and body, and upon external parts of the cervix. Upon examination at that time, a perceptible diminution in size of the cervix, a diminished depth of the uterine cavity, and less mucous discharge, were to be observed.

Application was again made of the nitric acid by the same method as before, followed by a series of bi-weekly applications of Lugal's solution of iodine and glycerine for four weeks, omitting a week in which a menstrual period occurred, with less than the usual amount of pain, and less in quantity of leucorrhœa; in short, it approached her former natural and healthy periods in general character.

Then followed a third application of nitric acid, and another course of bi-weekly applications of the solution of tannin, or of iodine, or of tincture chloride of iron, as the appearance of the case seemed to demand at the time of application.

At the end of three weeks more, the patient had passed another period, regular as to time, quantity, and character.

The cervix appeared healthy, and the uterine cavity was restored to its natural depth, involution being completed by surgical aid.

We next come to consider twenty-six cases of endometritis. The inflammatory effects being apparent in the cervix and body of the uterus, and a small number (six) being attended by ulceration or erosion about the margin of the os externum, the disease being wholly within the cavity of cervix or body generally.

Of these, sixteen were married, and ten single. Their ages ranged from twenty-one to forty-three years; average age, thirty-one years. The number of applications ranged from six to forty-eight; average number, twenty-one. Period under treatment ranged from one to twenty months; average period, a fraction under four months.

To correctly set forth the method of treatment pursued in these cases, I will again quote from the hospital record:

Case 2. Mrs. S.; age forty-two years; number of pregnancies ten, of which six were abortions; inclined to hysteria; is thin, dyspeptic, and irritable; complains of pain in back in ovarian region and down the thighs, and upon sexual intercourse; is subject to

frequent attacks of neuralgia of chest, head, face, and along spinal column.

Examination with speculum shows a glairy mucous discharge from the os uteri, with an areola of heightened color around it; a somewhat enlarged cervix.

Digital examination shows only a tenderness of cervix, with induration and hyperplasia.

The sound is passed only with pain and difficulty through the os internum. The presence of clots in the monthly discharge argues the presence of inflammation in the body as well as neck of the organ.

Treatment: Churchill's tincture of iodine to interior of cervix and body of the uterus; cotton ball pessary, saturated with glycerine, left in the vagina till the following day. This was June 22nd. Treatment repeated on the 26th, on July 3rd, 13th, 17th, 23rd, 26th and 30th, and Aug. 8th, 11th, 17th, and 21st. A solution of tannin in glycerine (one part in four) was applied in similar manner on the 24th, 28th, and 31st, and Sept. 7th, 11th, and 18th. Oct. 2nd resumed the tincture of iodine, which was applied Oct. 9th, 12th, 16th, and 23rd—making, in all, twenty-four applications, when the patient was discharged, and was able to pursue her employment through the succeeding autumn and winter with ease and comfort.

Case 3. Mrs. D., native of U. S.; age 32. First menstruated at thirteen years of age—always profuse, and generally painful; twelve years married without conception, although no effort has been made to avoid it. At present, the periods are regular but painful; has gelatinoid leucorrhœa, pain along spinal column, and in pelvis, and often down the course of sciatic and crural nerves; frequent tenderness of back of neck, and neuralgia of the same part. General symptoms of debility, nervous excitability, and cardiac irritability.

Speculum reveals little beyond a gelatiniform discharge from the cervix. Digital examination shows a tender and unduly hard condition of the cervix, with perhaps a very slight degree of prolapsus.

The general treatment adopted was principally mineral acids, with some vegetable bitters and afterwards some chalybeates.

The local treatment adopted was Churchill's tincture of iodine with glycerine, applied to interior of cervix by the application wrapped in cotton, twice weekly, from Aug. 21st to Dec. 1st.

A gradual amelioration of the symptoms enabled this patient to resume the active duties of a housekeeper with entire comfort, at this period.

Case 4. Mrs. S., native of U. S.; age 32; ten years married, has had two children—pregnancy prevented by use of tepid water for several years. Has pain in left hip, ovarian neuralgia, and leucorrhœa. Speculum and sound show superficial ulceration about the os externum, the result of inflammation of the lining of the cervix, which seems to have spread a little from continuity of tissue. Two or three applications of a saturated solution of nitrate of silver, followed by the use of the iodine, the tannin or a weaker solution of the nitrate, twice weekly, from Aug. 24th to Nov. 1st, resulted in so much of improvement that ultimate recovery was certain, when the patient failed to appear at the clinic, having left without being formally discharged.

We now will consider cases (seven in number) where variation from the normal position of the organ in question, is a special symptom, and the result of the same kind of inflammatory process. Of these, the greater part were treated without any mechanical support, and with a view of reducing the inflammatory condition which appeared to be the key to the difficulty. Of the above number five were married and two single. Average time of treatment, three and one-half months; average number of applications, sixteen; average age, twenty-four years.

Case 5. Mrs. H., age 20; of foreign birth; has enjoyed good health till within the past year; complains, at present, of pain in back and in the region of the womb; menstruation regular but painful. Has discharges from the vagina, of thick, tenacious, nearly transparent mucus. Speculum showed cervix turned to the left. The sound developed combined lateral and posterior flexion, considered to be due to a greater degree of inflammatory thickening of the opposite side of the organ, thereby its elongation by this means destroying the symmetry of it.

Has sanguineous discharge following the most careful introduction of the sound into the uterine cavity.

The treatment of this case was the cessation of household work and the use of a thirty-grain solution of nitrate of silver introduced into the cavity of the cervix and body twice each week, with a

cotton ball tampon left in the vagina. This method, continued for about twelve weeks, restored the natural position of the organ, and relieved the distress in the pelvis and back. The patient was enabled in much less than the above time to resume her ordinary duties as housekeeper, but continued the applications till recovered.

Especially in a case of long standing where there was decided prolapsus with an inflammatory enlargement, and increased weight of the whole organ, the use of Hodge's closed lever pessary contributed largely to the relief of the symptoms and undoubtedly promoted recovery.

In submitting the foregoing we have endeavored to avoid detail, and arrive at facts and conclusions as far as possible.

We may add that whenever any special symptoms, such as constipation, dyspepsia, neuralgia, palpitation or hæmorrhois, have been present, treatment of general character has been adopted, of which any special notice will hardly be appropriate, as it is foreign to the purpose of this report.

No. 119 22ND STREET, CHICAGO.

Clinics.

Trichinosis. *A Clinical Lecture, in Rush Medical College, March 4th,* 1874. By NORMAN BRIDGE, M.D., Lecturer on Practice of Medicine.

(SYNOPSIS.)

This patient, a farmer from Iowa, apparently about 33 years old, comes to Chicago for advice regarding his disease, which has been pronounced trichinosis. Thirteen weeks ago he ate two thin slices of raw, unsmoked ham. In two days he began to have diarrhea which soon became severe, and in three days he was attacked with vomiting. The diarrhea continues in a milder form to the present time; the vomiting only lasted a few days.

In little more than a week after the eating of the meat, he began to experience dull pain in the muscles of the chest, shoulders, arms and back. Some days later he had pain in the thighs, throat and neck, but at no time was it at all severe, and there was no pain

in the hands or feet. The painful muscles were made more painful on motion, and the patient avoided this as much as possible. He remained in bed five weeks, during much of which time he was obliged to be moved by attendants.

There was profuse perspiration, but I cannot learn that he had any considerable œdema of any part of the body. He thinks that at one time he suffered pain in his eyes on opening them widely or raising them to look upward, and for a short time his throat suffered pain by talking, and the muscles of respiration were painful with every inspiration. He lost his appetite entirely, had great thirst, and slept badly. He protests that his mind was perfectly clear the whole of the time, and that he remembers distinctly every step in his sickness.

After remaining in bed five weeks he had so far improved in strength as to be able to sit up. His appetite had improved, the sweating was less, the thirst had decreased, and what œdema had existed was gone. He felt now an inordinate hankering for pork. Not being yet aware of the nature of his complaint, he *partially* broiled a slice of ham, made a sandwich and ate it. In two or three days he had a relapse, his œdema now became extensive, the diarrhea and vomiting returned; indeed, all the bad symptoms again appeared, and in due time the pains in his muscles were exaggerated and more extensive. In ten days he began again to improve, since which time his amelioration has been steady. Now he is able to walk slowly, looks well and has an appetite, yet he declares he is never without pain in his arms, shoulders and back, and that if he exercises his legs much they are painful. Forcible contraction of the quadriceps muscle of the thigh causes acute suffering. The diarrhea still continues.

Now, in many regards this is a typical case; in some, it seems not. You are aware that the disease is due to the little worm trichina. It is taken in raw meat, being imbedded in the muscle in a half-developed form. In two days after it is liberated in the stomach it becomes sexually mature, and in six days each female casts forth several hundred young worms which immediately begin their wanderings. In a short time they make their presence in the muscles known by dull, steady pain. They have a preference for the muscles, and particularly for the points where muscle merges into tendon. We are told by authors, that the worms migrate

by crawling; in view of the fact that many muscles and those even at the extremities become painful at once, almost, I am not satisfied with the theory that the worms move only by crawling. How can they crawl such a distance in a few hours? What other means of migration have they except that of the circulation? It is natural for me to suppose that many of them find their way into the small vessels and are carried rapidly onward.

In fourteen days we are told the new brood of animals have attained the length of their progenitors when they entered the stomach. They coil themselves securely up in the muscles and are soon surrounded by fibrous cysts, which in many cases sooner or later become calcareous. The patient is cured by having strength to live and bear the irritation of the animals until this imbedding process is completed and the injured muscles are healed. During this time many of the symptoms detailed to us by this patient always occur. Death takes place in about twenty per cent. of cases, and in from one to five weeks.

In the fact of vomiting, purging, pain, and perspiration, the patient before us is a typical case. But his case is peculiar in the very long continuance of diarrhea. The extent of surface that has been painful is small, and he had little œdema or none until his relapse. These facts probably indicate that not a large number of worms have invaded his muscles. How much his violent vomiting and purging had to do in getting rid of the worms while in the alimentary canal we cannot say; doubtless they were beneficial.

I fail to see any reason for the continuance of his diarrhea except in the injury done to the mucous membrane. However, the general systemic irritation might lead to this result; certainly injured muscles—in the intestinal wall or elsewhere—do not tend to contract spontaneously or at all.

An occasional symptom of trichinosis is frequent micturition; this patient has not had it, but it appeared in several of the cases attacked at the same time with himself; while in one of these cases—that of his sister, now very low—frequent vomiting has continued as well as diarrhea, so that it is well nigh impossible to nourish the patient.

Although diarrhea is written down as a constant attendant on this disorder, it is not so. I have seen one case—a dispensary case

in this city some years ago—in which the bowels were constipated, insomuch that oil was given to move them; neither was there any vomiting. Yet in this case the trichinæ were so numerous that a piece of muscle the size of a wheat kernel cut from the biceps contained ten of the animals. This would give to a cubic inch of muscle a number not less than five thousand. I could not learn that a large amount of infected meat had been eaten, only a small piece of some sausage, still the swarms of trichinæ were so great that not a muscle of the patient's body could be touched without causing pain, nor could he move one of them without suffering. He had œdema over the whole body, some perspiration, a low fever, and died on the thirtieth day.

It seems in this case fair to infer that the great number of trichinæ in the muscles was due in some measure to the fact that none of them were carried out of the system by vomiting or purging. The patient now before us evidently swallowed a great many more of the cysticerci than the man who died, yet he is alive and able to walk.

So far as prophylaxis is concerned it is sufficient for this patient to know that a heat of 160° F. kills the trichinæ, and that hence if all the meat he eats has been heated to the boiling point there will be no danger of infection.

What can we advise as to treatment? Many remedies have been used; benzine, sulphites, carbolic acid. But there is no proof that any treatment has done good except such sustaining measures as will keep the patient alive until the worms are encysted. Tonics, nutrients, stimulants, and anodynes, are known to be valuable; no other remedies are. We know of nothing that will kill the worms after they leave the alimentary canal for the tissues, without killing the patient; it seems inevitable that if the patient recovers, it must be with the worms encysted. If we could hasten this encysting process the recovery would be facilitated. Can we do this? Can we hasten the calcifying process?

Prof. Allen has suggested the possibility of doing it by surcharging the blood with phosphate of lime. The idea is theoretically correct, and this patient will be sent home with the advice to take as much lime water and milk (equal parts) as he can, for nourishment, and to drink between the doses sweetened water acidulated with phosphoric acid. This will furnish a bland, nour-

ishing diet, and one very salutary in its effect on the diarrhea, while there is taken a mineral acid tonic. The treatment is good, whether it effects the process of encysting or not.

Of course, the most valuable treatment would be emetics and purgatives, to hasten the expulsion of the worms before they have passed out of the alimentary canal into the tissues. But this we are seldom able to administer, for cases are not usually diagnosed until the pains in the muscles are pronounced.

Reports of Societies.

Chicago Society of Physicians and Surgeons. *Transactions at Meeting of March* 9, 1874. *Reported by the Secretary.*

The Society met, as usual, in the parlor of the Grand Pacific Hotel, the President in the Chair. The minutes of the preceding meeting were read and approved. Dr. R. H. Bingham, of Castleton Medical College, N. Sk., Class of 1850, was unanimously elected to membership; and the name of Dr. C. T. Parkes, Demonstrator of Anatomy, Rush Medical College, was proposed for consideration of the Censors by Dr. J. E. Owens.

Dr. W. C. Lyman then read an Abstract of Cases treated in the Woman's Hospital of the State of Illinois during the year 1873.* The reading of the abstract was succeeded by some discussion of the treatment pursued.

Dr. P. S. Hayes then read that portion of the Annual Report of the Section on Pathology, having regard to the nervous system. The report was exhaustive of such published material as appeared during the preceding year on the pathology of disorders of nerves and of tissues eminently controlled by the spinal or sympathetic systems. The report was, on motion, accepted.

Dr. John E. Owens, by request of several members, made a verbal report of an operation for disease of the ovary, recently performed by him in St. Luke's Hospital. The report was necessarily imperfect, since the case had not yet been dismissed.

The patient, a female over fifty years of age, and multiparous, presented herself with enlargement of the abdomen to the extent of the distension in pregnancy at the eighth month. The mobility of the mass, subjacent to the abdominal parietes, indicated its non-

* This abstract appears in the pages of the CHICAGO MEDICAL JOURNAL for April, 1874.

attachment to the walls, and the duration of its existence for the previous seven to nine months, seemed to preclude the formation of any firm adhesions to the contiguous viscera. Ether was administered—a small amount of chloroform being added temporarily, as the complete anæsthetic condition was unusually deferred—and an incision carried from just below the umbilicus, to a distance of six or seven inches, exactly in the mesial line. A very few drops of blood were sponged away—as the abdominal walls were greatly attenuated—and the tumor of the ovary exposed. At this point one of its multilocular cysts ruptured, when the patient was at once laid upon her side, and the cystic contents—a substance of the general appearance and tenacity of calves' foot jelly—escaped into a basin—none of it entering the abdominal cavity. The tumor was then readily turned out of its resting place, and its pedicle secured in situ by a clamp. The entire mass was found to consist of a material similar to that already described—presenting the phenomena of colloid degeneration of the ovary in exceedingly typical aspect. A similar degeneration was found to have occurred in the vermiform appendix, the latter having become enlarged to a sextuple dimension, and presenting upon its external aspect minute, cyst-like collections of similar colloid material. The external surface of the small intestine was inflamed to such an extent as to resemble the condition of "granular lids." The lips of the wound were brought together so that the peritoneal surfaces were opposed, and an opening left at the lower extremity into which a pledget of lint was inserted, in order that subsequently, if needful, intra-abdominal injections might be employed. This procedure was, however, found to be unnecessary, as the entire wound has now (10th day) completely closed, and the patient has so far exhibited a very satisfactory condition. The pulse has ranged from 70 to 100 per minute, and the temperature from 98° to 103° F., the exceptional elevation noted having been occasioned by the excitement incident to change of clothing and bedding.

A superficial examination of the morbid material contained in the ovarian cysts, made under the microscope by Dr. I. N. Danforth, revealed the presence of trabeculæ, described by Paget as "fibrous white cords, or thin membranes, arranged as in the areolar tissue, or in a wide-meshed net-work."

The narration of the details of this case elicited a brief discussion.

The speaker (Dr. Owens) then read the following abstract of cases occurring in St. Luke's Hospital:

I. *Parietal Gaseous Abscess of the Abdomen.*

The formation of abscess in the walls of the abdomen is of unfrequent occurrence. The matter may be superficial, it may

collect between the layers of muscles, or lastly, between the latter structures and the peritoneum. Some are connected with disease within the cavity; others again are uncomplicated. When deep-seated the abscess is said to imbibe gas from the intestinal tube, which is very apt, as the disease advances, to become adherent to the posterior wall of the abscess.* When deep-seated, muscles and aponeuroses bind down the pus, and it is consequently a long time in coming to the surface.

September 17th, 1873, an unmarried girl, aged nineteen years, was admitted to St. Luke's Hospital, with vaginitis. The case was complicated by a somewhat diffused inflammatory induration and swelling situated in the lower part of the abdomen on the left side. This swelling began about a month previous to the patient's admission to the hospital. By means of pressure by the bandage these signs of inflammation had so far subsided that the patient was discharged Oct. 6. The animal functions were apparently normal.

December 2nd, probably at least three and a half months from the beginning of the inflammation, and two and a half months after her discharge, the patient was re-admitted to the hospital. She had been at work; the inflammation had grown more diffuse, swelling, induration and pain were prominent symptoms, and inflammatory fever had already supervened.

The patient having been put to bed, fomentations were applied to the part, and morphia administered in sufficient quantity to allay pain. The inflammation was limited below by Poupart's ligament; internally, by the linea-alba; superiorly, by a transverse line passing through the umbilicus; externally, by a line touching the anterior-superior-spinous process.

Four or five days subsequent to re-admission, a soft spot was discovered, in which one could place the end of the fore finger. That the little cavity contained pus was pretty certain. It possessed also an unusual element in its contents, viz., a bubble of gas. The following day the cavity had enlarged, and the quantity of pus and gas had proportionately increased. Upon manipulation the bubbling was both felt and heard. Percussion yielded, not the usual flat sound of an abscess, but the tympanitic sound of gas accumulation. So far as operative interference was concerned, nature was left to take her course, and this plan is a good one, especially, if the pus shows a disposition to come to the surface. Gradually the cavity enlarged; pus and gas became more abundant, and in ten days from the date of re-admission the cuticle sloughed, giving exit to a large quantity of offensive sanious pus, and very offensive gas (sulphuretted hydrogen). Convalescence was rapid, and the patient was discharged December 23rd.

* Gross.

II. *Empyema—Paracentesis—Great Improvement from the use of Drainage Tube.*

M. O. Heydock, M.D., in charge of the medical wards of the hospital, and in charge of this patient, has kindly furnished me the following notes in the case:

"Charles Sparks, aged twenty-one years, was admitted into St. Luke's Hospital, February 22nd, 1872, and gave the history of a recent attack of pleuro-pneumonia. The characteristic signs attendant upon the presence of fluid in the pleural cavity were easily recognized. He was subjected to the treatment ordinarily resorted to, under like conditions, until May 17th. At this time the vital powers were rapidly failing. Hectic, emaciation, diarrhœa, and oppressed breathing, foreshadowed a fatal issue, and as a last resort, paracentesis was performed by Dr. Owens, giving exit to five pints of pus. On the 23rd of the same month a second operation was performed, giving exit to two pints of pus. A drainage tube was introduced, and the cavity daily washed out with a weak solution of carbolic acid in water. The discharge gradually diminished in quantity, and there was in all respects a remarkable change for the better in the condition of the patient. Under the influence of good diet and tonics, as iron, quinine and cod liver oil, June 8th found him walking about the wards of the hospital, and July 20th out of doors, the discharge at this time being some two ounces of pus per day.

"July 30th it was thought best to remove the drainage tube, lest its presence might be operating as a seaton, and in a degree, at least, furnish an explanation why this amount escaped daily. The upper orifice rapidly closed, and the discharge from the lower grew small in quantity. During the month of August he convalesced rapidly. Early in September the discharge grew thin and offensive, the patient lost his appetite, diarrhœa and night sweats set in, and rapid emaciation followed. There was tenderness in the axillary region, bulging and redness of the upper cicatrix, and the condition of the patient more unpromising than at the time of the first operation.

"Recourse was had once more to the knife, exit given to a large quantity of unhealthy pus, and the tube re-introduced September 18th, 1872. Little, if any, constitutional disturbance followed a somewhat tedious operation, during which the patient was under the full influence of an anæsthetic. Hectic and diarrhœa rapidly disappeared, the appetite returned, and soon after the patient was sent home, and from that time until the present—nearly one and a half years—he has worn the drainage tube, and enjoyed, during a very considerable portion of the time, a fair degree of health and strength."

A few days ago the patient was admitted to the surgical wards.

The old tube is growing weak, from having been long bathed in pus, and the patient desires a new one, if necessary. Can the tube be altogether dispensed with? The respiratory murmur can be heard more or less distinctly over the whole extent of the lung posteriorly. The murmur is distinct over the upper part of the chest, but it cannot be detected in ordinary respiration over the lower third of the lung in front, but it can be when forced breathing is employed. Six or eight weeks ago an exfoliation of bone about an inch long was removed by the patient from the anterior orifice. The posterior opening is in the intercostal space of the seventh and eighth ribs, on a line dropped from the posterior border of the axilla. The anterior is located between the third and fourth ribs; immediately above the nipple. The discharge at present does not exceed two ounces daily. The orifice is well washed with a weak solution of carbolic acid.

III. *Amputation According to the Method of Esmarch.*

The stump, left after an amputation of a leg which had been crushed by an injury, exposed the ends of both bones at the bottom of an indolent ulcer, which completely precluded the application of an artificial limb. Re-amputation was performed, after the bloodless method, by encircling the limb with a rubber bandage, each successive turn of which overlapped that which preceded. The elastic tubing was applied immediately upon the last turn of the roller. The leg had been previously suspended, in order to obviate the possibility of the formation of a clot in the vessels, which might induce a thrombosis and subsequent embolism elsewhere. The operation was absolutely bloodless—as much so as in the dissection of a cadaver. Subsequently a very small slough occurred upon the edge of the flaps in the site of an old cicatrix, and where the tissues were superimposed upon a layer of cartilage, no greater, however, than is frequently seen under the most favorable circumstances. The operation, in its issue, was eminently successful.

The discussion of these cases turned mainly upon the question of the propriety of opening abscesses of the abdominal parietes with gaso-purulent contents.

Dr. Jackson asked whether it were well to neglect the golden rule of surgery, to give exit to pus which was obviously seeking an external outlet.

Dr. Merriman asked if there was not danger of such an abscess bursting internally, its contents finding their way into the abdominal cavity.

Dr. Owens thought it well to consider the possibility of the formation of an artificial anus as a sequel to such interference.

Dr. Lyman thought that surgical records might be searched in vain for an instance of such an abscess finding an exit to the

peritoneal cavity, since the process of agglutination of its lining membrane, which proceeds in advance of the approaching abscess, attaches to the latter a coil of adjacent intestine, into which the contents of the tumor necessarily escape.

Dr. Hyde thought that the presence of gas in an abdominal abscess, implied the proximity of an adherent coil of intestine. In purulent and fetid collections in the neighborhood of the rectum, there is generally some rent in the rectal wall, establishing a communication between the cavity of the abscess and the gut; and in cases of abscess of the walls of the abdominal parietes where no gut adhesion has occurred, as in the instances caused by urinary infiltration upward from a false urethral passage, there is ammoniacal fetor and sloughing, but no gas.

Dr. Wickersham considered that the spontaneous opening of the abscess, when it evidently pointed externally, should be confidently and patiently awaited. He narrated a case, occurring in his own practice, in which a boy fell upon his abdomen while at play, and in two or three days subsequently suffered from dysuria. It was doubtful whether the excruciating pain which he endured, resulted from lesion of the bladder, peritoneum or bowels. So severe was the latter symptom that one-third of a grain of morphia was requisite to procure relief for the little patient, who was but a few years old. The catheter was used twice daily, and was necessitated by the presence of an indurated mass, which soon became detectable, situated, apparently, in a plane posterior to the bladder. In three or four days afterward, fluctuation became evident, and a spontaneous exit of pus occurred at the navel, in quantity equal to three or four tablespoonsful. The pain soon subsided, and the little patient made a good recovery.

Dr. Merriman thought that occasionally there was danger of a spontaneous opening, *both* externally and internally, and cited the case of a lady, then under his professional care. There had been, several years ago, a pelvic abscess which had resulted in such a manner that now, as indeed during the entire period since the occurrence, there were alternate intervals of a few days, in which there were feculent discharges from the bladder and urinous discharges from the rectum.

The Secretary stated, that in his belief a majority of such cases had a history of first, spontaneous bursting of the abscess in one direction, and subsequently, ulceration and irritation from the presence of foreign secretions, sufficient to result in the formation of a counter-opening. He alluded to the testimony of pathological anatomy as bearing upon the question at issue.

The discussion was then closed.

It was resolved, on motion of Dr. Owens, that every member of the Society connected with the staff of a hospital, be added to the "Committee on Clinical Reports."

It was announced, that at an early date, Dr. J. H. Etheridge would read a paper on the "Organic Hydrides," and Dr. John Bartlett would present the "Annual Report of the Section on Pathology."

The Secretary extended an invitation to the members of the Society, from the Chicago College of Pharmacy, to attend the Annual Exercises of the College on the evening of the 10th inst.

The Society then adjourned.

Central Illinois Medical Society.

The Central Illinois Medical Society met in semi-annual session at Clinton, Tuesday, Dec. 9, 1873. Called to order by Dr. W. Hill, of Bloomington, President. Opened with prayer by Rev. Mr. Piper, of Clinton.

Dr. J. Wright, Chairman Committee of Arrangements, in a brief address, bid the Society a thrice hearty welcome to Clinton and Clinton hospitalities; to which Dr. Laughlin, of Bloomington, on the part of the Society, briefly responded.

Minutes of previous meeting read and approved.

T. W. Davis, M.D., of Wapella, D. W. Edmiston, M.D., B. S. Lewis, M.D., of Clinton, J. H. Tyler, M.D., A. L. Norris, M.D., of DeWitt, Elias Wenger, M.D., of Gilman, C. R. Carr, M.D., of Bloomington, J. M. Waters, M.D., of Gibson, were recommended for membership, and Censors reporting favorably, they were duly elected.

Drs. M. G. Parsons, of Jackson county, Hunt, Adams, and Mahern, of Clinton, Axton and Crothers, of Maroa, being present, were invited to participate in the proceedings of the Society.

On motion, adjourned till 2 P. M.

AFTERNOON SESSION.

Called to order by President Hill. Minutes of morning session read and approved.

Dr. Jno. Wright, of Clinton, read an able report on "Puerperal Convulsions." He did not think uræmic poison a cause. He thought blood-letting advisable in some cases; others, not; that different cases require different treatment.

Dr. Pearman, of Champaign, thought sulphate of atropia a good agent to control convulsions. Dr. Miller, of Farmer City, reported a case in which hydrate of chloral, bromid of potassium, and sulph. morph. exercised a very favorable influence over convulsions. Did not think he derived benefit from blood-letting. Dr. Goodbrake, of Clinton, had never seen any benefit derived from blood-letting. His experience warranted the use of chloroform, and, thinking uræmic poison often an exciting cause, would use diuretics. Dr. Parsons, of Jackson county, thought he had

derived great benefit from fluid extract of scutellaria. Dr. Birney, of Urbana, thought uræmic poison an exciting cause.

Dr. S. H. Birney, of Urbana, Chairman of Committee on Surgery, read an interesting report on "Surgery: its Social and Legal Status," in which he spoke at length of malpractice. He thought suits to recover damages were often brought against surgeons by the intervention of meddlesome physicians (so called.) He was much opposed to men not medical sitting as jurymen in suits for malpractice, and thought the laws of the State of Illinois very unjust in requiring so much of surgeons, without allowing them the necessary privileges for obtaining the knowledge necessary to become good surgeons, viz: that of dissecting.

Dr. J. Little, of LeRoy, of Committee on Surgery, read an able report on "Amputation at the Knee Joint." He had performed this operation with the most satisfactory results, and thinks it safer than amputation at the upper joint of the leg, and leaves a better stump for an artificial limb.

Dr. S. H. Birney, Chairman of Committee on Surgery, read an excellent report on "Shock." He had great confidence in the restorative properties of nature. Would not give alcoholic stimulants; if any stimulant, would give ammonia. This report elicited a lively discussion. Drs. Hill, of Bloomington, and Goodbrake, of Clinton, would resort to alcoholic stimulants.

EVENING SESSION.

Called to order at 7 o'clock P. M. by President Hill.

Dr. J. T. Pearman, of Champaign, read a very interesting report on "Practical Medicine," in which he spoke at length of typhoid fever, its cause and treatment. He thinks it is an enteritis, and that turpentine is the sheet anchor in its treatment; that turpentine is as much a specific for typhoid fever as quinine is for intermittent fever. Dr. Goodbrake, of Clinton, thought it was not a self-limited disease; that it need not necessarily run a certain number of weeks.

The hour having arrived for the "Public Address," Dr. T. F. Worrell, of Bloomington (President Illinois State Medical Society), delivered an ably prepared address to a house full of Clintonians, in which he spoke at length of the obligations of physicians to patients, and patients to physicians.

On motion of Dr. C. Goodbrake, the thanks of the Society were respectfully tendered Dr. Worrell, for his able address, and he was requested to furnish a copy of it for publication in the CHICAGO MEDICAL JOURNAL.

Dr. R. G. Laughlin, of Bloomington, Chairman of Committee on Practical Medicine, read a practical and very interesting report on the different diseases met with since the last meeting of the Society, in which he spoke of cholera, in treatment of which he

suggested the use of milk by injection. He also spoke of cholera infantum, yellow fever, typhoid fever, etc. Dr. Worrell advocated very strongly the use of verat. viride in treatment of typhoid fever. Dr. Goodbrake thought brandy a better agent for reducing frequency of the pulse.

Dr. C. T. Orner, of Saybrook, read a brief and interesting report on "Obstetrics," in which he made some valuable suggestions to the physician in the lying-in room. He also suggested that in cases of foot and breech presentations, where the body is delivered and head remains undelivered, that "instead of putting the index finger in the mouth, and rounding the body up over the os pubis, that the *left* hand be placed under body of child, and supported on a line nearly level with the body of the woman, while with the right hand, between pains, the child is pressed back against the womb, till the frontal portion of the head strikes the sacral angle; thus producing extreme flexion of the head, and disengaging it from the os pubis." The advantages claimed being the presentation of the short diameters of head, the increased power of the uterus, the prevention of pressure on the cord, and birth of child at first pain. The Doctor supported this method by reporting cases in which he had practiced it with the most satisfactory results; also the experience of his friend, Dr. J. B. Brooks, of Reading, Pa., who had practiced it in a number of cases, and to whom Dr. Orner was under obligations for the above suggestions.

Dr. W. G. Cochran reported a case of monstrosity, in which a child of six months' development was born, with evidence of having been dead some time, with a fleshy tumor in front of the neck, as large as the head of a fully developed fœtus, and, in connection with the placenta, a semi-fleshy mass, which, with placenta, weighed six pounds.

Delegates to American Medical Association: Drs. Elias Wenger, R. G. Laughlin, W. L. Pollock, S. H. Birney, Jno. Wright.

Delegates to State Medical Society: Drs. W. Hill, W. G. Cochran, T. D. Fisher, J. T. Pearman, C. Goodbrake, H. C. Howard.

SPECIAL COMMITTEES.

Surgery.—Drs. H. C. Howard, C. Goodbrake, J. M. Waters.

Practical Medicine.—Drs. T. D. Fisher, W. L. Pollock, E. C. Bartholow.

Obstetrics and Diseases of Women.—Drs. E. Wenger, J. S. Miller, J. L. White.

Microscopy.—Dr. R. H. Huddleston.

Diseases of Eye and Ear.—Drs. C. R. Carr, D. W. Edmiston.

Hypodermic Medication.—Dr. Jno. Wright.

Skin Grafting.—Dr. J. T. Pearman.

New Remedies—Dr. J. Little.

Progress of Physiology.—Dr. A. L. Norris.

Next place of meeting: Bloomington.

Committee of Arrangements: Drs. T. F. Worrell, R. G. Laughlin, J. L. White, H. C. Luce.

On motion, the Society adjourned at midnight, to meet in Bloomington, the second Tuesday in June, 1874.

W. G. COCHRAN, *Sec'y*

Editors' Book Table.

NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co. whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

The Puerperal Diseases—Clinical Lectures delivered at Bellevue Hospital. By FORDYCE BARKER, M.D., Clinical Professor of Midwifery and the Diseases of Women at Bellevue Hospital Medical College, etc., etc. New York: D. Appleton & Co. 1874.

An Introduction to Physical Measurements, with Appendices on absolute Electrical Measurement, etc. By Dr. F. KOHLRAUSCH, Professor-in-Ordinary at the Grand Ducal Polytechnic School of Darmstadt. Translated from the second German edition, by Thomas Hutchinson Wallen, B.A., B. Sc., and Henry Richardson Proctor, F.C.S. New York: D. Appleton & Co. 1874.

PAMPHLETS RECEIVED.

The Relations of Colorado to Pulmonary Consumption. By THOS. E. MASSEY, A.M. M.D. Denver. 1874.

The Sixth Annual Report of Toronto Eye and Ear Infirmary. 1873.

The Second Biennial Report of the Board of State Commissioners of Public Charities of the State of Illinois. December, 1872.

Contributions to the Natural History of Specific Yellow Fever, etc., etc. By JOSEPH JONES, Professor of Chemistry and Clinical Medicine, University of Louisiana. Reprinted from New Orleans Medical and Surgical Journal—Jan. 1874.

Catalogue of Jefferson Medical College, Philadelphia. Session 1873–4.

Constants of Nature. Smithsonian Miscellaneous Collections, 255. Part 1. Specific Gravities, Boiling and Melting Points, and Chemical Formulæ.

Epidemic Diseases as dependent on Meteorological Influences. By C. SPINZY, M.D., St. Louis.

Catalogue of Books and Pamphlets relating to America, etc.—Robert Clarke & Co., Cincinnati.

Medico-Legal Society, New York—Inaugural Address of CLARKE BELL, Esq., Nov. 26, 1873, President of the Society.

Dictionary of Elevations and Climatic Register of United States. By J. M. TONER, M.D.

Transactions of Wisconsin State Medical Society.

Report of Brigham Hall, a Hospital for the Insane. Canandaigua, N. Y., 1874.

JOURNALS RECEIVED.

The American Chemist, Philadelphia—January.
" American Medical Journal—January.
" American Journal of Syphilography and Dermatology—Jan.
" Atlanta Medical and Surgical Journal—Feb., March.
" American Practitioner, Louisville—March.
" Am. Naturalist (Salem) Peabody Academy of Science—Mar.
" Boston Medical and Surgical Journal—March, 1874.
" Boston Journal of Chemistry—March.
" Canada Medical and Surgical Journal—February.
" Canada Medical Record—February.
" Central Law Journal—February 19.
" Clinic, Cincinnati—Feb. 14, 21, 28, Mar. 7, 14.
" Cincinnati Lancet and Observer—Feb. and March.
" Detroit Review of Medicine and Pharmacy—March, 1874.
" Dental Cosmos, Philadelphia—Jan., Feb., Mar.
" Druggists' Circular, New York—Mar.
" Eclectic Medical Journal, Cincinnati—Feb. and March.
" Indiana Journal of Medicine—Feb.
" Kansas City Medical Journal—Feb.
" London Lancet—Feb.
" Medical Herald, Leavenworth—Feb.
" Medical Record of New York—Jan. and Feb., Mar. 2.
" Medical Record of Canada (Montreal)—Feb.
" Medical and Surgical Reporter, Philadelphia—Feb. 7, 14, 28, Mar. 7, 14.
" Medical Times, Philadelphia—Feb. 14, 28, March 7, 14.
" Medical Examiner, Chicago—Mar. 1.
" Medical News and Monthly, Philadelphia—March.
" Nashville Journal of Medicine and Surgery—Feb.
" New Orleans Medical and Surgical Journal—Jan.

The North-Western Medical and Surgical Journal—March.
" New York Medical Journal—March.
" Pharmacist, Chicago—March.
" Physician and Pharmacist—March. 1874.
" Practitioner, London—Feb.
" Richmond and Louisville Med. and Surgical Journal—Feb.
" Southern Medical Record, Atlanta—Jan., Feb.
" United States Med. and Surgical Journal, Chicago—Jan.
Le Progres Medicale, Paris—Vol. 2, Nos. 3, 4, 5.

Editorial.

The Philadelphia University of Medicine,

Recently suppressed by an Act of the Legislature of the State of Pennsylvania, is represented in Chicago by an individual practicing medicine under the authority (?) of one of its diplomas, who, from evidence in our possession, seems to have acquired his medical education in one of the subterranean beer saloons so abundantly scattered along Milwaukee avenue. being in fact one of the category termed by Falstaff "revolted tapsters." We have been urged to expose the individual by name, which we decline to do; first, because we do not propose to advertise quacks, and secondly, because we believe that the public will profit by no teacher but experience, and its lessons must be bought, and paid for. Those who habitually place their lives in the hands of physicians of whose skill and integrity they have no evidence, have a perfect right to do so, and if their folly bears its usual fruit they must eat it, thanking themselves alone for the repast, and look to the law for their redress against these, as against other false pretenders.

Sanitary Science.

"*Dogberry.*—We will spare for no wit, I warrant you; here 's that [touching his forehead] shall drive some of them to a *non com.*: only get the learned writer to set down our excommunication." *Much Ado About Nothing.* Act III, Scene V.

The "excommunication" has been set down, and it runs thus: "He doubted whether syphilis could be considered a contagious

disease in the strict acceptation of the word. He believed it was not contagious, inasmuch as it could not be caught in the air or by contact."

The above is a quotation from the proceedings of the Chicago Board of Health, as published in the Chicago Times, Feb. 26th, and is a sample of the sanitary science for which the city pays seventy or eighty thousand dollars per annum, and also will serve to illustrate the quality of the dead wood out of which this "board" has been constructed.

This opinion was announced during a discussion of certain propositions, the first of which was, "The principal duty and objects of sanitary science, and of boards of health, is to promote and preserve the sanitary safety and health of the citizens, and to improve their sanitary condition." If the expression of such opinions be the first step toward the fulfillment of "the principal duties of sanitary science and boards of health," then we should earnestly pray to be protected from the possible consequences of their continued fulfillment in the manner foreshadowed in the above.

Moreover, the essential correlation of "sanitary science and boards of health" implied in the same, will appear more than doubtful, through the very medium of its expression.

The operations of the Chicago Board of Health have suggested a widely different conception of its duty, its objects and its correlations than that indicated by the proposition quoted above, and a much more intimate affiliation with ward politics and garbage-contracts, than with sanitary science.

In view of the probable selection of Chicago as the place for the next meeting of the Sanitary Association of the United States, we have reason to congratulate ourselves in advance, upon the weight (avoirdupois) of authority with which local sanitary science will be sustained therein.

Asylum for Imbeciles.

We are told by a popular poet that, "for ways that are dark and tricks that are are vain, the heathen Chinee is peculiar," and those who have carefully watched the proceedings of the present legislature at Springfield, and have read House Bill No. 801, will see in it the finger marks of Ah Sin. This is a Bill for an "Act to estab-

lish a Board of Health for the State of Illinois." "To consist of eight (8) persons, who shall be physicians of good standing," to hold office for four years.

Section 2 of this "Bill" defines the duties of said board, in which nothing specially noteworthy occurs, except that they are to report once a year to the Governor "their *doings, investigations and discoveries.*"

Section 3 provides that they shall hold "regular meetings at least once every four months," that four members shall constitute a quorum; that a president shall be elected annually, *and a secretary—who shall be the executive officer of the board—quadrennially.* That "no member shall receive compensation for his services, *except the secretary;*" "Provided, also, that the actual travelling and *other expenses* incurred by any member, in performing the legitimate work of the board, be paid." That the secretary be allowed to draw upon the treasurer of the State for an amount necessary to purchase the needed stationery, and for other necessary expenses; also, "an *annual* sum for his services," "not to exceed twenty-five hundred dollars for *any one year.*"

Section 4 defines the duties of the secretary, which shall be "*to superintend* the work contemplated in this act," etc., etc.

Section 5 provides, amongst other things, "that such information and statistics," etc., "as *the board of health may deem proper*, shall be recorded," etc.

Section 6 provides for the registration of births, marriages and deaths.

Section 7 provides that all boards of health within the State shall be auxiliary to the State Board, and shall *report* annually to the *secretary* of that board at such time as he may direct.

Section 8 relates to "a seal."

Section 9 initiates the effect of the act, etc.

We said above that the finger marks of Ah Sin—whose smile was child-like and bland—could be traced in this "Bill," and a long bill it will prove to the taxpayers if it should ever become a law. We did not mean literally, because the Bill is written by some one tolerably familiar with the English language, ("which the same *he* does not understand"); but metaphorically, some good-natured friend having put his crude ideas into intelligible shape.

It has recently been stated by the secular press that no less

than twenty-two boards now encumber the administration of this much-governed State, and now when the curses of the people both broad and deep are execrating the corruption growing out of these, it is coolly proposed to add another to the already too long list.

But this one is to "consist of eight persons, who shall be physicians of good standing." Does Ah Sin suppose that eight physicians in good standing are to be found, willing to accept such positions, assume the weighty responsibility incident thereto, and conduct the *work* of *investigations* and *discoveries*, defined in the 2nd section of the "Bill," without compensation? He does not suppose it, and if he does not, nobody else is idiot enough to do so Moreover, there is no such intention or desire on the part of the framer of the Bill. The personnel of the Board will consist of one champion dead-beat (pardon the slang) who will be the secretary, and seven professional nonentities, whose duties will be limited to giving a coloring of legality to the secretary's performances, and —most onerous of all—to listen to his long winded "reports."

In view of the abominable tinkering to which the original Health-Bill, proposed for Chicago, was subjected at Springfield, resulting in the passage of the present legislative abortion; in view of the public ridicule and odium which the Board as now constituted has attracted, by its utter failure to accomplish the objects for which it was ostensibly designed, it would seem to demand a degree of modest assurance amounting to impudence, to attempt the creation of another such imposition upon the credulity and endurance of the community.

Moreover, this House-Bill No. 801, providing for a State Board of Health, is but a cautious first step in the initiation of another and bolder scheme, *i. e.*, the passage through Congress of a law authorizing the creation of a National Board of Health, ostensibly for the preservation of the public health, the cultivation of sanitary science, and the education of the people therein; but in reality to create official position for small professional politicians and placemen, too ignorant and indolent to earn for themselves position and respect in the legitimate walks of professional life.

The tendency of such institutions is to become asylums for worn-out political hacks, having as much knowledge of sanitary science as a hedge priest has of theology; until by their corruption they engender the elements of their own disorganization.

One intelligent and well educated physician, clothed with proper authority, and having the necessary assistance, could render more efficient service in the preservation of public health, the advancement of sanitary science, and the education of the people therein, than this proposed State Board and all its auxiliaries combined. But he must be both intelligent and well educated, and not simply a literary and scientific junk shop, crammed with odds and ends of second-hand information and worn-out ideas borrowed from popular treatises on "Science made easy," or picked up in casual conversations with educated men.

Abstract of the Proceedings of the "Chicago Society of Physicians and Surgeons," for the year 1873.

I. REPORTS.

a. Annual Report of Section on Practice of Medicine—one paper.
b. Annual Report of Section on Surgery—three papers.
  1. Strictures of Urethra and Rectum.*
  2. Electro-Therapeutics of Surgery.
  3. Staphyloraphy and Uranoplasty, with exhibition of gag and models.*
c. Annual Report of Section on Pathology—two papers.
  1. Pathology of Nervous System.*
  2. Pathology of Ovarian Tumors.
d. Annual Report of Section on Obstetrics and Diseases of Women and Children—two papers.
  1. Diseases of Women.*
  2. Diseases of Children.
e. Annual Reports of Officers of the Society.
f. Report on the Literature of Cholera, with Abstracts from the Later Authorities.*
g. Report of Committee on the Prophylaxis and Treatment of the Cholera Endemic in 1873.*
h. Report on the Therapeutic Value of Cosmoline.

II. PAPERS.

a. On Centripetal and Centrifugal Neuroses.
b. On Pathogenesis by the use of Tobacco.*
c. On the Relations of the Integumentary and Generative Organs.*
d. On the use of Lime Vapor in Pseudo-Membranous Croup.*

e. On the Cervix Uteri Before, During, and After Labor. Illustrated by drawings.*

f. On the Genetic Relations of Marsh Fungi to Malarial Disease. Illustrated by colored sketches and microscopical preparations of palmellæ blood containing sporules, saliva and sporules, etc.*

g. Review of Hall's Translation of Lanfranc's Surgery, published in London in 1565.*

h. On the Physiological Relations of Alcohol.*

i. On some Questions in Therapeutics.

j. On the Waxy Kidney.*

III. Reports of Cases.

a. Cases of Cholera, occurring near the Southern Limits of the City of Chicago —Endemic of 1873.

b. Additional Cases in same general place and time. Illustrated by map of locality.

c. Additional Cases in the same locality, occurring later in the season.

d. Cases of Cholera in Louisville, occurring in 1856.

e. Twelve Cases of Cholera in the City of Chicago in 1873.*

f. Case of Criminal Abortion—fatal from hemorrhage.

g. Cases of Intra-laryngeal and Tracheal Medication.

h. Case of Chronic Inflammation of the Stomach, simulating Cancer, with Report of Necroscopy and Microscopic Pathology, and exhibition of stomach in gross, with magnified and illuminated sections.*

i. Cases of Uterine Fibroids relieved by the Hypodermic Injection of Ergotine.

j. Case of Foreign Body in the Urethra.

k. Case of Gunshot Injury of the Cerebral Sinuses, terminating fatally.

l. Case of Intense Sciatic Pain from Suppressed Menstruation, relieved by the Thermo-Electric Bath.

m. Case of Syphilitic Destruction of the Epiglottis, with unimpaired Power of Deglutition. Exhibition of patient.

IV. Specimens Presented.

a. Semi-calcareous tumor, removed from the arm of a pregnant female—and report of case.

b. Monster; with complete visceral ectrophy, four mammary glands, and no genito-urinary nor intestinal apertures.

c. Heart; ruptured from muscular degeneration – and report of case.

d. Right auricle; perforated by pistol ball—and report of case.

e. Ossified cardiac valves—and report of case.

f. Cancer of uterus—and report of case.

g. Rice water dejections in cholera, mounted on microscopic slides, and illuminated—with reports from cases

V. EXHIBITIONS.

a. Anatomical models of the Chicago University. Recently purchased in Germany.

b. Reproductions in colored crayon, of photographs of cutaneous diseases.

c. Models of invalid and operating chairs, close stools, etc.

d. Spectroscopic and other scientific apparatus.

Number of meetings in 1873 22
Total attendance 436
Average attendance each meeting 19.8

☞ Papers marked with a star, have been published in the medical journals of the city.

Chicago Mortality Report for February, 1874.

MORTALITY IN MONTH OF FEBRUARY, 1874.

Accident, under narcotic	1	Embolism	2
" " tanzy	1	Exophthalmia	1
" by railroad	6	Enteritis	6
" by scalding	2	Exposure	1
Abdomen, congestion of	1	Entero Colitis	1
Anæmia	1	Epilepsy	1
Apoplexy	6	Erysipelas	9
Asthma	3	Fever, intermittent	1
Bowels, congestion of	1	" puerperal	10
Brain, congestion of	4	" scarlet	1
" inflammation of	4	" " malignant	1
" softening of	1	" typhoid	11
Bronchitis	17	Gastritis	2
" capillary	3	Heart, disease of	4
" chronic	2	" paralysis	1
Cancer	1	" aneurism of	1
" of breast	1	" organic disease of	2
" of bowels	1	" hypertrophy of	2
" of liver	1	" valvular disease of	5
" of stomach	1	Hemorrhage, cerebral	1
" of uterus	2	Hernia, strangulated	1
Child-birth	1	Hepatitis	2
Cholera Morbus	1	Hydrocephalus	7
Chest, inflammation of	1	Inanition	9
Consumption	54	Intemperance	3
Convulsions	66	Kidneys, Bright's disease of	4
Croup	3	" inflammation of	2
" membranous	1	Laryngitis	1
Cyanosis	1	Liver, cirrhosis of	1
Debility, general	6	" and kidneys, fatty degeneration of	1
Diphtheria	4	Lungs, abscess of	1
Dropsy, general	2	" congestion of	3
" of chest	2	" emphysema of	1
Dysentery, chronic	1		

Lungs, hemorrhage of	2	Pleurisy	7
Malformation	1	Pyæmia	1
Metritis	1	Rheumatism	1
" puerperal	3	" inflammatory	2
Meningitis	9	Scrofula	1
" cerebro spinal	9	Septicæmia	1
" tubercular	1	Small-Pox	11
Mouth, canker sore	1	Spinal Cord, disease of	1
Nervous prostration	1	Stomach, ulceration of	1
Nutrition impaired	1	Suicide, drowning	1
Old Age	17	" cutting throat	1
Orchitis	1	" hanging	1
Œsophagitis	1	Tabes Mesenterica	7
Paralysis	3	Teething	4
Parotitis	3	" and complication	2
Pelvic Cellulitis	1	Uterus, hemorrhage of	3
Pericarditis	3	Vertebra, fracture of	1
Peritonitis	6	Vitality deficient	1
" puerperal	3	Whooping Cough	4
Pneumonia	48		
" typhoid	4	Total	472

Premature births, 15; Still births, 57. Total 72

COMPARISON.

Deaths in month of February, 1874	472
" " January, 1874	553
Decrease	81
Deaths in month of February, 1873	586
Decrease	114

AGES.

Under one year	169	Forty years to fifty	39
One year to two	33	Fifty " " sixty	18
Two years to three	10	Sixty " " seventy	18
Three " " four	5	Seventy " " eighty	19
Four " " five	4	Eighty " " ninety	3
Five " " ten	13	Ninety " " one hundred	--
Ten " " twenty	29	One hundred and upwards	2
Twenty " " thirty	59		
Thirty " " forty	51	Total	472

Colored	7	Males	236
White	465	Females	236
Total	472	Total	472

Married, 156; Single, 316. Total 472

NATIVITIES.

Austria	1	Holland	2
Bohemia	7	Ireland	53
Canada	5	Norway	5
Native—Chicago	44	Scotland	8
Foreign, "	158	Sweden	9
United States, other parts	98	Switzerland	1
England	6	Unknown	4
France	1		
Denmark	4	Total	472
Germany	66		

Deaths daily, 17. Mean thermometer, 32.4°. Rain fall, 1.61 inches.

MORTALITY BY WARDS, ETC., FEBRUARY, 1874.

Wards.	No. Deaths.	Pop. in 1872.	Percentage.
1	4	398	one death in ----
2	3	2,174	" " " ----
3	18	19,157	" " " 1,064
4	10	16,832	" " " 1,683
5	11	18,564	" " " 1,688
6	57	31,371	" " " 550
7	40	27,644	" " " 691
8	30	30,253	" " " 1,008
9	26	30,032	" " " 1,155
10	14	16,624	" " " 1,189
11	18	18,340	" " " 1,019
12	11	20 876	" " " 1,898
13	20	14,636	" " " 732
14	11	15,892	" " " 1,445
15	52	40,047	" " " 770
16	32	19,099	" " " 597
17	21	17,513	" " " 834
18	23	19,977	" " " 868
19	6	2,944	" " " ----
20	7	5,023	" " " ----
	414	Ratio of deaths to population in 1872, one death in 778½.	

No. deaths in Wards	414	Mercy Hospital	4
Accidents	10	St. Luke's Hospital	1
Bethel Home	1	St. Joseph's "	3
County Hospital	17	Suicides	3
Foundlings' Home	16		
Hospital for Wives and Children	1	Total	472
Protestant Orphan Asylum	2		

CASES OF SMALL-POX REPORTED DURING FEBRUARY, 1874.

Ward.	No. Cases.	Ward.	No. Cases.	Ward.	No. Cases.
1	--	8	--	15	9
2	--	9	1	16	6
3	--	10	--	17	1
4	--	11	1	18	5
5	--	12	--	19	1
6	--	13	--	20	-
7	8	14	1	Recent arrival,	1
Total					34

Cases reported during February, 1874	34
" " " January, 1874	79
Decrease	45
Cases reported during February, 1873	161
Decrease	127

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Original Communications.

ARTICLE I.—*Cerebro-Spinal Meningitis, or, Spotted Fever.* Read before the Joint Session of the Woodford and Marshall County Medical Societies, assembled at Winona, Ill., January 6th, A. D. 1874. By JAMES S. WHITMIRE, M.D., of Metamora, Ill.

MESSRS. PRESIDENT AND GENTLEMEN OF THIS JOINT ASSOCIATION:

At the last meeting of the Woodford County Medical Society, held at Eureka, I was designated by our President to make a special report at the joint meeting of these Societies on the subject of Cerebro-Spinal Meningitis, so-called, as it appeared in Woodford county during the latter part of the winter and spring of 1872, and the latter part of the fall and winter of 1872–73. In accordance, therefore, with such appointment, I would beg leave to submit the following report.

This disease made its first appearance in the vicinity of Metamora and Spring Bay simultaneously, about the middle of February, and from these places it spread east and north respectively, for many miles; but within this range there were certain localities that suffered more severely than others. In the two places par-

ticularly mentioned, and in their vicinity, it assumed all the malignancy and produced all the horrors of a terrible and alarming plague. It was clearly epidemic in our range of practice, and though other portions of the county suffered to some extent, yet in those it seemed to appear more in a sporadic form, there occurring no more than one, two or three cases in a neighborhood, though, even in that case, it seemed to abate none of its malignancy; neither, in any locality, did it seem to be any respecter of persons, because it attacked individuals of all ages, sexes and conditions, from sixty years down to the infant at the mother's breast.

The disease again made its appearance in the vicinity of Spring Bay during the latter part of November of the same year, assuming, from the commencement, an epidemic character, and did not abate, either its spread, or its violence, till February, 1873. To speak more particularly of our spring epidemic of spotted fever, it became so alarmingly prevalent during the month of April, and the mortality was so great, that the whole population became greatly agitated and alarmed; and the fear was so general, that for a time it was almost impossible to procure aid for taking care of the sick, lest there should be either contagion or infection connected with it. During this time, the late Judge Richmond was holding court in Metamora, and the alarm was so general on account of the prevalence and fatality of the disease, that a panic was produced among all classes, so that it was with the greatest difficulty the court, with all its judicial authority, could keep the witnesses and empaneled jurors from making an immediate simultaneous stampede.

The spring epidemic at Spring Bay was neither so wide-spread nor fatal as it was with us in the vicinity of Metamora and east, but it extended up and down the Illinois river bottom for eight or ten miles, and back into the country among the bluffs for several miles from the river, but it followed, principally, the creeks and swales that carried the debris from the hill country on its way to the Illinois river. I have frequently witnessed sporadic cases of this disease in the autumn of different seasons since 1848, but I never before witnessed the disease assume an epidemic character, at this season of the year, till it made its appearance in that manner in November, 1872, when it put in an appearance at Spring

Bay and along the river bottom, in its most deadly character, and continued till the early spring of 1873.

In the spring epidemic, along the Illinois river, the disease seemed to be, and was, quite amenable to the influence of medicine, and my friend, Dr. J. G. Zeller, who lives at the Bay, had all who were attacked in the range of his practice to attend. He was much more successful in his treatment, at this time, than we were who practiced on the prairies, nearly all, or at least a large proportion, of his patients making a speedy recovery. He did not, during the spring epidemic, lose to exceed fifteen per cent. of his patients, so that reckoning from his own standpoint of success, he very naturally came to the conclusion that the disease was but little, if any, more fatal than others of our endemic diseases, and that its fatality with us on the prairies away from the river, was owing to bad management or other remediable causes. In his cases the most alarming symptoms usually disappeared on the administration of quinine, but still there remained after its administration the persistent contraction of the posterior cervical and the dorsal muscles, but by the continuation of tonic doses of this drug the contraction gradually gave way, and his patients were soon traveling on the highway to health and happiness. But the fact that the disease yielded so certainly to the influence of quinine, and that its characteristic symptoms slowly relaxed under its continuance, makes the presumption strong, notwithstanding most of the distinguishing features of so-called cerebro-spinal meningitis were present—and this, no doubt, on account of the epidemic cause of the disease being present—that miasmata was the principal factor in the disease as it prevailed at this time.

But the epidemic that occurred the following fall and winter presented itself with the same virulence that had attended its visitation during the spring previously, in the vicinity of Metamora. One family living in Spring Bay, during the epidemic lost three children, between the ages of six and fourteen years, with the disease in less than three weeks, two of whom were attacked and died within the same twenty-four hours, and buried in the same grave. I had the honor of being called in consultation with Dr. Zeller in three cases, one of which was his own child; and while on this visit, the Doctor was pleased to take me with him to see seven or eight others who had been stricken with the same disease,

all lying within a radius of half a mile; and of that number there was but one perfect recovery; two got up; one of them was perfectly blind, and the other permanently deaf. In this epidemic, I think that I am safe in saying that there were fully fifty per cent. of fatal cases, probably more, and some of the cases lingered for over one hundred days before they died, and one perfectly recovered when convalescence was not fully established till after that period.

In our spring epidemic on the table lands, we had very much such a time and experience as that of Dr. Zeller during the fall and winter, and the disease assumed the same malignant type. One case that came under my care was a young lady, Miss W., aged sixteen years, in whom the disease was presented in its most deadly form. She arose from her bed in the morning, made a fire, and proceeded to get breakfast for the family; after breakfast her father and mother went to Washington, four miles distant, to do some shopping. On their return at 12 o'clock, M., they found her lying on the bed in a partially insensible condition; alarmed at this, I was immediately sent for, and arrived about 2 o'clock, P. M. The surface of my patient was cool and pallid; the pupils of both eyes were dilated to their utmost extent; her pulse was beating at the rate of only sixty per minute, moderately full, but soft and feeble; her hearing was obtuse, and she answered questions only in monosyllables, and not then and in that manner unless she was sharply addressed; besides, her comprehension was exceedingly dull. I ordered her one tablespoonful of whisky, in hot milk, every five, ten, or fifteen minutes, and directed that she should be packed in a blanket wrung out of hot water, but before we could get the water hot she was a corpse.

My friend, Dr. A. H. Kinnear, I believe, had the misfortune to be called to one or two similar cases, where the patients succumbed to the toxic effects of the cause before there was any chance for medication. I simply mention these cases in connection with those of Dr. Zeller, that died so suddenly, because I may have occasion to refer to them again in this paper when I come to treat of the etiology of the disease.

It is not my purpose, in this paper, to enter the field of history in regard to this disease, as it has made its appearance in this and other countries at different times; neither is it

my purpose to give the general or diagnostic signs of the disease, because these are sufficiently detailed in our standard works, and have now become a part and parcel of our reliable medical literature, about which there is no controversy. But my purpose will be to direct the mind of the inquirer to the cause or causes that may or may not combine to produce this disease; and these we can only approximate by observation and comparison, always keeping in mind the condition and circumstances under which it is most generally manifested, and in so doing, we will scarcely lose sight of the mooted question, whether this is a zymotic or other form of disease. In this connection I will state, as my opinion, that this disease originates from the direct influence of a blood poison, which is generated by extraneous causes, and is, most probably, received into the blood through the instrumentality of respiration; that this is an extrinsic, impalpable poison, and that it is cumulative in its nature, rather than a reproducer of itself—the latter property belonging only to the contagious zymoma. Or, perhaps it would be better to make the statement that the animal economy, through the blood, is capable of receiving and retaining a very considerable amount of the poison for a long time, and the vital forces of the economy show no indications of its toxic influence. But, when such quantity of the toxical principle has accumulated in the circulating fluid of the body as to produce pathological changes in the blood, or to directly spend its force upon the brain and spinal cord, its toxical effects are sure, speedy and powerful, and the victim is stricken down in an instant, unawares, when probably there had been no prodromic signs whatever, that might have been considered even a slight indisposition.

These opinions I have formed from observations made during the recent epidemic, of which I have already made mention; but my mind had previously been moved in that direction during former epidemics that have occurred under my immediate notice since 1848. That the poison, whatever it may be, or however it may be produced, is cumulative, there can be no doubt; because, during the prevalence of an epidemic of spotted fever, every person seems to be subject, to a greater or less degree, to manifestations of its influence, and the reason why one person is attacked and another escapes, is probably the peculiar susceptibility of the one, and the power of resisting morbid influences in the other.

During an epidemic of this disease, let any individual fall sick of any other disease, so that his vitality becomes impaired, and you will most certainly observe many of the symptoms of this disease manifested during the progress of the disease under which your patient is suffering. This holds good and is abundantly proven by the observations of every medical man who has passed through an epidemic of cholera or yellow fever; and there is no epidemic disease that is not more or less influenced by the type and character of the endemic diseases of the country where it may exist; and especially is this the case where our miasmatic fevers are most common. Probably no epidemic manifests this peculiarity more generally or more certainly than the disease under consideration, because many of its characteristic symptoms are inevitably present in all the endemic diseases that prevail at the time of the prevalence of the epidemic. I have treated very many children, and carried them successfully through an attack of infantile pneumonia to convalescence, and then, just when I was about to discharge the little sufferer as no longer needing medical care, and commenced congratulating the parents on the restoration of their darling to the blessings of health, this infernal disease—this so-called cerebro-spinal meningitis—would make its appearance with all its afflicting horrors, and, in spite of all the medical aid that could be rendered, it would carry its victim to the grave. That this disease has a malaria-miasmatic origin I have no doubt; but what the difference in the constitution of the poison consists in, that would designate it from that of our autumnal fevers, or from that of our typhoid fevers, is a question that is not yet solved, neither am I at this time able to answer. Nevertheless, it is true that neither malaria, proper, nor miasmata, has ever been made palpable by the most carefully directed experiments; neither have their existence been demonstrated by the most delicate chemical reagents. The spore theory may settle some of these difficulties in regard to intermittents, but that is far from receiving the unqualified sanction of the profession. Yet, that marsh miasm—whatever that may be—produces our intermittent and remittent fevers, there is no longer any doubt, and the presence of such poison is made evident from the circumstances that demonstrate its existence. So it is, too, with typhoid fever; it has its own special cause, because there is no other disease that runs the course that

it does, or that manifests the same phenomena; neither are there any that produce the same pathological results. It was by the closest scrutiny and the most diligent observation of the circumstances and surroundings that attend the development of this disease, that has caused the profession to settle down in the conviction that it requires the decomposition of both animal and vegetable matter to produce that kind of poison, or malaria, that will favor the production of the latter disease; hence we see it most frequently making its appearance in crowded and illy ventilated apartments, where not only the animal exhalations from the body and lungs are present, but the excrements and other debris are not wanting to induce a ferment that is sufficient to poison the occupants of the premises.

In the vicinity of Spring Bay, and up and down the Illinois river, where cerebro-spinal meningitis, so-called, made its appearance by a most fearful and sudden mortality among those attacked during the fall and winter, the country for miles in every direction, excepting east, and even in front of the town, is a continued marshy swale, filled with lagoons; so that during the summer and autumn months, at least, the atmosphere cannot possibly be in any other condition than rife with marsh miasm; and what tends greatly to make the matter worse, the cattle, hogs and horses of the surrounding country, in seeking food, are constantly miring down and dying in these marshes, so that a combination of malaria and marsh miasm is, at one and the same time, generated and evolved, that is sufficient to poison the atmosphere for miles back into the country.

What other factor or entity may be present in connection with malario-miasmata, that forms a new and distinct product, has not so far been ascertained; but certainly a concatenation of circumstances, such as temperature, moisture, or electricity, or the whole combined, may be present, so that the three factors, or the two that are known, may be so acted upon by unknown agencies as to develop a third, the toxic action of which is greater than either one of its original constituents. This may be instanced by an illustration in chemistry, where the union of amygdalin and emulsin, either of which, separately, is innoxious, but united they form hydrocyanic acid, one of the most deadly poisons known, and which has no resemblance physically or therapeutically, to either of

its constituents. It need not be said by the opponents of this theory, that the epidemic form of this disease always comes in the fall, winter and spring, and therefore there is no chance for decomposition and the consequent evolution of poison. Because, it is not the fact, according to the history of this disease, that it always makes its appearance in cold weather, for it has been known to appear as an epidemic in every month of the calendar.

The people of Woodford county seem to have had a mania for underground cellars, and nearly every respectable dwelling in the county has a cellar under it. These are stored full during the winter season of every kind of vegetables, and to keep them from freezing, every aperture is closed up, so that neither air, frost nor light can enter, making every one a dungeon, deep, dark and damp, without any available means of ventilation. These cellars are generally without means of drainage, on account of the lay of the land, and even where there is an opportunity for drainage, the nature of the soil and underlying clay precludes the possibility of their being kept dry, and, therefore, both winter and summer, they are damp and noisome, even when there is abundant opportunity to give them light and ventilation. During the winter season, on account of this moisture, heat and stagnant air, all the vegetables are undergoing the process of decay to a greater or less extent. In these noisome holes are also deposited the offal of meat and other animal remains; hence, the heat of the cellar during the winter months is capable of generating a malario-miasmata, the toxic influences of which must produce the most deleterious effects upon all who come within its range. This being undoubtedly true, it is a question worthy of further investigation, whether a poison generated under such circumstances, and at a temperature much of the time below 60° F., may not render its properties peculiar, and make it more inimical to human life than when produced under other and varied circumstances.

This disease-producing cause, whatever it may be, and however it may be produced, acts, through the blood, upon the brain and spinal cord, but, whether there is any material change produced in the constitution of the blood by the presence of the poison in that fluid before the manifestation of its toxical effects, is a point that is not yet settled, and certainly deserves further investigation;

neither is it settled whether, or not, the poison is simply carried through the system by means of the blood, without change of either, to spend its force upon the great nerve-centres. All these things require further investigation, but now that we think we have reached the entrance of the bay that leads to a safe haven, we may confidently expect the explorations to continue till the lineal survey will be made complete, and the corner stones planted that will mark the boundary. But, that the poison does spend its force upon the great nerve-centres there is no longer any doubt; and that it is the primary cause of spotted fever, there can now be no question.

I will here make the statement, that the disease so produced is a distinct and entirely different disease from that of acute inflammation of the meninges of the brain and cord, or either of them, the latter of which is necessary in order to constitute a case of true cerebro-spinal meningitis. This proposition is not simply inferred; it is proven and made evident from numerous post mortem examinations that have been made by different observers in cases of sudden death from this disease; and in persons who have died prior to the sixth day there has never been found any appearance of inflammation, neither have any of its results been manifest; hence, individually, I have settled down in the conviction, that this is not, primarily, an inflammatory disease; and I am further convinced that any inflammatory action that may be developed during its progress is of a special or erysipelatous character, is secondary in its development, and never occurs till after the fifth day from the first decided manifestation of the disease. The action of the poison that produces this disease upon the nerve-centres, is the production of almost complete paralysis of their functions, and, hence, the delicate capillaries of the brain and cord, and their meninges, become, also, paralyzed and unable to carry on the circulation, in consequence of which, their nutrition is disturbed, and the physiological disintegration and molecular formation of new tissue is retarded, which leaves them in a pathological state. These capillary vessels, in consequence of the paralysis, become engorged with blood and pour out the watery contents of that fluid into the unyielding bony cavities, not in the form of an effusion indicative of resolution from an inflammation, but it is poured out by exudation through

these paralyzed vessels, as through a dead membrane; and this not only produces pressure upon the cord itself, but the retained corpuscles and other constituents of the blood that are incapable of exudation tend to accumulate and engorge these atonic vessels, so that they, in conjunction with their exuded contents are capable of producing an amount of pressure upon the nerve-centres that, taken in connection with the poison, could scarcely be considered in any other light than making a death-stroke at their vital functions. This engorged condition of the atonic capillaries is, no doubt, what has given rise to the light pinky appearance of the membranes so often seen after a sudden death from this disease, and misled pathologists to that extent as to cause them to conceive that inflammation had been going on in the tunics of the brain and cord. The pressure that is produced by the exuded serum, assisted by the engorged vessels, is sufficient of itself to destroy the functions of the nerve-centres, independent of any damage that may have been done to the vital forces from the paralyzing influence of the toxic principle which was the immediate cause of the failure of their normal functions. This has been made apparent by all the post mortem examinations that have ever been made; because, in no instance has such examination ever developed any signs of inflammation, either in the brain or cord, or their investing membranes, where the victim has succumbed to the disease in a less time than six days from the attack; but, where the person has survived for from twelve to sixteen days, we then have signs of inflammation present, and such signs too as the disorganization of the great centres by softening, and pus between the layers of the arachnoid membrane and in the lateral ventricles. In private practice it is very difficult to get the consent of friends to a post mortem examination in any case, and in this disease, particularly, where the young are most frequently its victims, they think it seems like sacrilege to submit their dear departed ones to such examination. In army practice, however, the case is different, because it is there made a duty devolving upon hospital surgeons to make all investigations necessary in special cases for the general information of the medical staff, and report the same to the surgeon-general. During the months of March and April, 1862, while I had the honor of having charge of the general hospital at Smithland, Ky., there occurred many cases

of this disease among the invalid Federal soldiers who were left behind, in camp, previous to the battles of Shiloh and Donaldson. Many of those who were attacked died, and as the opportunity was offered I selected the subjects as they occurred, making two examinations of men who died previous to the sixth day, and two of persons who survived till after the twelfth day. The two who died within six days from the time of attack were found to have an unusual amount of fluid in the cavities, and the membranes were of a light pink color, but there was no flaky appearance of the liquid, nor was there any semi-organized membranes in connection with the tissues. The substance of the brain and cord, so far as the unaided eye could distinguish, was, apparently, in a healthy condition. The two, however, who lived to near the sixteenth day showed a very different condition of the substance of the brain and cord. These two cases, about the seventh day began to be feverish and more restless, and the temperature in the rectum showed 103° F., whereas previously the temperature had not reached 100° F.; their pulse became more frequent, and they had some muttering delirium; neither of them became violent, but remained much in the same condition, their pulse becoming more frequent and feeble as the end approached. One of these patients had convulsions towards the last, and the other had paralysis of one side. The autopsia cadaverica in the one having convulsions showed a sero-sanguineous fluid at the base of the brain and within the spinal canal, and when the cord was lifted from its bed, portions of it dropped off, and the membranes were unusually tender. In the case of the one having paralysis there was slight softening of the Pons varolii, bloody serum at the base of the brain and in the spinal canal, and also in the lateral ventricles—this patient was blind, and the pupils were dilated and insensible to light for three or four days previous to his death.

I am stating these facts from memory, my memorandum having been lost or mislaid before I left the service. These two latter cases were both evidently subjects of a special inflammation which was more allied to that of erysipelatous than that of acute or any other character of inflammation; and this was never set up till on or after the sixth day from the attack, as was evident from the thermometrical range of temperature after that period;

and in both instances it would appear that not only the enveloping membranes, but also the substance of the brain and cord, were attacked with this special inflammation, which went speedily on to disorganization.

And now, independent of these illustrations, it is a conceded fact, deduced from the most careful and accurate observation, that in no epidemic of this disease (so-called cerebro-spinal meningitis) have the reputed antiphlogistic remedies been of any avail; in fact, when they have been resorted to, with the idea of allaying acute inflammation, they have proven worse than useless, and been a direct injury to the patient wherever and whenever they have been resorted to in the treatment of this disease.

With regard to the treatment that we have found most satisfactory in this disease, I will here make the statement, that since 1863, my brother, Z. H. Whitmire, and I, have treated this so-called cerebro-spinal meningitis in accordance with the pathology herein laid down, and that too with the most satisfactory results; more satisfactory, indeed, than any that have been obtained from any other given method. In saying this, I can assure you that we have no routine practice to offer you, nor specifics to recommend, because no two cases are precisely alike; hence the indications to be met in each case will vary in minor particulars, but we always endeavor to keep steadily in view one prominent feature of this disease, and that is, the immediate and fearful tendency to the failure of the vital functions which is apparent in the beginning of every sudden and violent attack. This low status of the vital forces is not unfrequently manifested by a morbidly natural, and occasionally a slow soft pulse, a cool pallid surface, and a general apathy of the patient's movements. This condition is sometimes succeeded by a feeble attempt at reaction and restoration of the vital functions; when, instead of a perfect restoration, restlessness will supervene, and then, instead of the slow measured beat of the pulse that was present at the outset of the disease, it will become frequent and unsteady, but it will still lack the force that an acute inflammation would produce, and the patient may or may not fall into a low muttering delirium. He will never, however, at this stage, be thrown into that wild ungovernable mania that is wont to follow an acute inflammation of the meninges of the brain and cord. A wild delirium, however, may supervene, either on or

after the sixth day, and when it does, it is an unqualified indication of the commencement, setting up and progress of that special inflammation of which I have previously made mention in this paper.

The indications of treatment, therefore, in the commencement of an attack, are to be met with evacuants, eliminants, stimulants, anodynes, tonics, rubefacients, and the hot bath or pack, in connection with the most nutritious food from the commencement, that is capable of being assimilated by the patient. We use evacuants because as a rule the bowels are in a constipated condition, but it is best to use them only to that extent which is sufficient to once thoroughly cleanse the alimentary canal; and that being done, be sparing in the use of purgatives in the after treatment. We may expect favorable results, also, from the use of eliminants on account of their supposed action in facilitating the removal of morbific material from the economy through the emunctories—skin, liver, kidneys and lungs. Stimulants are necessary that the vital forces may be sustained, and thus render aid to the action of the eliminants and enable them to do their work without too great a draft upon the vitality of the system. Anodynes may be used, if necessary to produce rest and sleep, for in that condition there are greater and more successful efforts at recuperation than in any other condition of the system, the value of which, in this regard, would be a work of supererogation to present to the members of these societies. We would use tonics for the same reasons that would lead us to use stimulants; their action is slower, but their ultimate effects are more permanent and the force of the heart's action needs to be sustained. Rubefacients are specially useful in this disease, and more particularly the tincture of iodine, which, besides its powerful revulsive effects, by its absorption from the surface acts as a tonic to paralyzed capillaries and excites the absorbents to action, and may thereby relieve the cord from pressure by the taking up of any fluids that may have been poured out of the vessels, and cause the engorged capillaries to empty themselves into the general circulation, and thus, probably avert the secondary effect of the poison, which is the supervention of a special or erysipelatous inflammation of the brain and cord or their investing membranes.

In case we should be called to see a patient and find him languid,

surface cool or natural, pulse 60 to 70, occasional wandering, or not, as the case may be, constipation of the bowels, an intense pain in the back of the head, neck and along the dorsal spine, and complaining of a stricture about the chest, so as to prevent a deep inspiration, and which causes frequent sighing; we at once order him enveloped in a wet blanket wrung out of *hot* water, and apply bottles of hot water along the spine and to the extremities, or, what is still better and always at hand, we put into a boiler, with water, half a bushel of ear-corn and bring it to the boiling point; we then pile the hot ears along the spine from the nape of the neck to the hips; and also distribute the corn along and about the extremities, and cover both the patient and corn with one or two thick cotton comforters. In this pack we keep our patient from thirty minutes to one hour, occasionally changing the corn so as to keep it *hot* till he is in a profuse perspiration. The patient will not be in the pack more than thirty minutes till he will drop into a quiet sleep, and so we let him rest, sometimes for an hour, quietly changing the corn as it loses its heat, for other ears of a higher temperature, so as to prevent the pack from becoming simply a warm bath. After a reasonable time we take him out of the pack, give him a thorough rubbing with a dry coarse towel and put him into a dry, warm bed; and as often as our patient becomes restless, or complains of great pain, we repeat the pack —not a warm pack—because we consider that the stimulation of the *hot* pack is one of the essentials necessary to meet the indications in the case by relieving the nerve-centers of their engorgement and enabling the functions of animal life to be carried on more perfectly. It quiets restlessness, allays pain, and produces tranquil sleep. The *hot* pack we have often resorted to, three, four and five times during twenty-four hours, to accomplish these objects, and never without producing the most happy effect. It has never disappointed us in its results, and hence we have never had occasion to regret its timely and diligent application. We are not unaware that, under these circumstances, the historical ice-bag has been resorted to with the idea of reducing or preventing inflammatory action, but in our hands it has never appeared of any practical value; on the contrary, its action has rather proven mischievous than otherwise until after the sixth or seventh day, when it is more than probable that a special inflammatory

action has taken place in the brain and cord, or their membranes, or both. After the *hot* pack, we usually advise the administration of a mild cathartic, for the purpose of removing any acrid or other secretions that might prove a source of irritation and disturbance during the course of the disease.

The alimentary canal once cleansed, we then put our patient under constitutional treatment, and for an adult, or during the latter term of adolescence, our average prescription would be: R. Pot. brom., dr. j.; gelsem. fluid ext., dr. j.; ol. terebinth, dr. j.; aqua, oz. j.; syrup simpl. oz. iij. The dose of this mixture is one tablespoonful every four hours. As a stimulant and tonic, to give force and permanency to the heart's action, to aid or facilitate the oxidation of the blood, and to improve the secretions so as to favor the elimination of the poison, we have found the following recipe admirably adapted for that purpose: R. Opii pulv., grs. iv.; ipec. pulv., grs. vi.; quin. sulph., sc. j.; ammon. mur., pot. chlor., *aa* dr. j. Mix and divide into twelve powders, one of which may be given between each dose of the mixture. We also advise the muriated tinct. of iron, to be given in twenty drop doses three times a day from the commencement of the treatment. This would be simply an average prescription for an adult; for children it should be proportional, but the manifest object of the prescription in either case should not be lost sight of, and the intelligent practitioner will often see good and sufficient reasons for many minor changes or additions to what we have here recommended in almost every case he meets. Many cases have come under our care where we have been compelled to resort to the hyd. of chloral for the purpose of inducing sleep, and so far we have never seen any evil consequences resulting from its use. The physiological or therapeutic action of each of the several medicines, herein recommended, is too well known to the profession for me to trench upon your valuable time in a dissertation upon their separate or combined action upon the economy; but it may be well in this place to mention that the acknowledged action of bromide of potassium is specially directed to the brain and spinal cord, and through a reflex influence produced by the drug, the calibre of the capillaries of the nerve-centres is lessened, thus enabling them to disgorge themselves, and probably, like the iodide of potassium, it also stimulates the paralyzed absorbent vessels into renewed activity, so that the supernatent fluid in the cavities is taken up,

thus relieving the brain and cord of the compression to which they have been subjected by their presence. It may not be amiss in this place to also mention that gelseminum is comparatively a new remedy with the regular profession, and its complete physiological action upon the economy is not, probably, fully known; but, in these cases, it seems admirably adapted to allay pain, to compel quiet where there is great restlessness, and to insure sleep; besides, so far as we have observed, while it may lessen in some degree the frequency of the heart's action, it does not in the least abate its force; so that we may safely conclude that the frequency of the heart's action is only abated on account of the tranquility that the drug is wont to produce, and not on account of any direct sedative influence produced upon the nerve-centres and through them influencing the action of the heart and arteries. Therefore we have reckoned this drug as one among our most efficient remedies in this disease; one, too, that, in our opinion, cannot well be dispensed with; because it not only exercises a controlling influence over the cerebro-spinal system, but it induces diuresis and diaphoresis at the same time—a quality that is rarely, if ever, found in any other drug. As a rubefacient, we prefer, by all odds, the tinct. of iodine, which is applied along and on each side of the spinal column twice a day until the skin becomes tender, when we mix it with castor oil, to render its action milder and avoid vesication. From the known action of iodine we expect it to operate as an adjuvant to the bromide of potassium in setting the lymphatic vessels into such activity that the accumulated fluid in the unyielding cavities will speedily be taken up, the pressure removed from the brain and cord, and the vital forces permitted once more to resume their sway.

Finally, Mr. President, and gentlemen, I am exceedingly gratified to be able, here, and at this time, to make the announcement, with becoming modesty, and without any spirit of boasting, that since 1863, we have passed through three most terrible epidemics of this disease within our range of practice; and under this general plan of treatment, my brother and I have not lost to exceed fifteen per cent. of our patients who were afflicted with spotted fever, which we think is a sufficient guarantee to induce us to continue in well-doing, and to recommend this subject to the careful consideration of our professional brethren.

ARTICLE II.— *Waxy Kidney— With Case.* Read before the Chicago Society of Physicians and Surgeons, December 8, 1873. By M. W. WOOD, M.D.

Late in the first quarter of the present century, a discovery was made which marked an era in the history of medicine; I allude to the results of the researches of Dr. Richard Bright, which were first published in London, in 1827, in the first volume of his "Reports of Medical Cases."

Unsatisfied with the little which was known of the real pathology of certain forms of dropsy associated with albumen in the urine, he improved the advantage of his position as physician to Guy's Hospital, and made the investigations which have had the result of giving the name of "Morbus Brightii" to all the various forms of degenerative processes which have been discovered in the kidney.

The different pathological states which are included in this general class are quite various; differing in modes of origin, in morbid anatomy, in symptoms, and in course; and as to where the line should be drawn, between these and other pathological conditions of the kidney not to be thus included, pathologists are undecided; even those who would most sharply make such distinction, differ in the conditions to be included. There is, however, tolerable uniformity existing with regard to the inclusion of an inflammatory form, one of fatty degeneration, one of amyloid or waxy degeneration, and one of cirrhosis.

It being impracticable, within the limits of this paper, to treat of "Bright's Diseases" in general, I shall confine myself to a consideration of some of the more prominent points in the least common of the essentially different morbid processes generally recognized as included under this general term, *i. e.*, the amyloid or waxy degeneration, or, as Niemeyer* defines it, "parenchymatous nephritis, with amyloid degeneration of the walls of the vessels, for very unusually is the tunica propria, and still more rarely are the epithelial cells affected." Johnson, an eminent authority upon this general subject, says,† "all of the changes of structure commence in the secreting cells of the gland, and are the results

* Niemeyer. Text Book of Practical Medicine.

† Johnson. Diseases of the Kidney. 1st Edition. London, 1852.

of an effort made by the cells to eliminate from the blood some abnormal products—some materials which do not naturally enter into the composition of the renal secretion." Stewart, another high authority, divides the condition into three stages: of which he terms the first, one of degeneration of the vessels; the second one of secondary changes in the tubes; and the third, one of atrophy.*

A careful consideration of the subject, however, in the light which general pathology brings to bear upon it, causes a dissent from these views, and forces us to the conclusion that while the normal epithelium still lines the tubules, the protoplasm thrown out is, in obedience to the laws of nutrition, built up into tissues or secretion like those which preceded it; but, the cell-type once lost, the exudate which is being continually thrown out, having now no physiological function to perform, becomes degenerate, and the particular form of degeneration which occurs is that to which the exudate was predisposed.†

True, *atrophy*, *i. e.*, a small, contracted, granular kidney closes the scene in this, as in each of the other forms of "Bright's Disease," though each form is characterized by different anatomical changes; but this fact, though stated generally in the course of their essays, seems to have been lost sight of by our authors in making up their list of deductions, else we would not have had a "Gull-Sutton-Johnson controversy."

The nature of this substance, the result of the degeneration has been variously regarded; thus, Dickinson‡ considers it a variety of fibrin, and Sir Wm. Gull§ speaks of it as a "hyalin fibroid" substance; Roberts says,‖ "to call it amyloid is simply a misnomer, and an unfortunate one, as it leads to confused notions as to the existence of some connection between waxy degeneration and the (genuine) amyloid substance found in the healthy liver. * * * * That it is essentially a degeneration, and in no sense an infiltration by any ingredient of the blood, becomes apparent on consideration of the parts affected."

* Stewart. Bright's Diseases. 2d Edition. N. Y., 1872.

† Prof. J. Adams Allen. Lectures on General Pathology. Chicago, 1872–3.

‡ Roberts. Urinary and Renal Diseases. 2d Edition. Philadelphia, 1872.

§ Proc. Royal Med. Chi. Soc. Med. Times and Gazette. London, November, 1872.

‖ Op. cit.

The waxy kidney occurs chiefly in persons of a strumous diathesis; and more often in males than in females, because they are more exposed to its exciting causes; for the same reason, adults are more particularly liable than children; and, of adult males, those whose occupation is one of exposure to wet and cold.

The disease is generally symmetrical; that is, both kidneys are more or less affected, though the disease is frequently more advanced in one kidney than in the other; cases, nevertheless, have been reported, where one kidney was in an advanced state of degeneration, and its fellow normal;* in such cases, however, there is albuminuria, but no dropsy.†

The symptomatology of this disease merits our careful attention, but a consideration in detail of the various symptoms would be too tedious, and a few, only, of the more prominent ones will be presented; noticing, however, in passing, that its insidious approach, steady progression, and probable duration, are pointed out by various morbid appearances, which also give us valuable guides as to treatment.

The Anasarca.—This, which led Dr. Bright to his important discoveries, is generally the first to induce the patient to seek advice, and directs attention to the real trouble, as in the case which I am about to relate. The rate of development of the anasarca may, as Johnson says,‡ "be at any time measured by the rapidity with which the imprint of the finger is effaced from the edematous surface;" an observation which will be borne out by the testimony of those who have carefully observed this phenomenon. The anasarca seems to depend upon:

a. The amount of destruction of gland-tissue, as anasarca makes its appearance only when there is no longer sufficient kidney structure intact to separate the urinary excrementitious substances.§

b. The amount, and rapidity of accumulation of these substances in the blood.

c. The density of the blood-serum; and here it may be noticed that there is a definite inverse ratio between the coagulability of the urine and this density.

* London Path. Soc.'s Trans., Vol. 19.

† Harley. The Urine and its Derangements. Philadelphia, 1872.

‡ Op. cit.

§ Harley, op. cit.

d. The amount of capillary obstruction; and it should be borne in mind that the flow of blood through the capillaries is to a certain extent affected by the composition of the blood itself; it being a well known principle of physics that fluids pass readily through capillary tubes for the walls of which they have an affinity.*

e. The amount of urine voided; it being obvious that the danger of anasarca is lessened in proportion to the amount of diuresis.

The Appearance of the Patient.—Together with the pasty look of the face, there is a pallid or dingy hue of the skin, of which Dr. Loomis remarks:† "It is peculiar; not like the clear pallor of phthisis, nor the dingy pallor of cancer; not easily described, but peculiar to 'Bright's Disease,' and easily recognized after it is once seen." Stewart‡ also calls attention to a peculiar characteristic appearance of the face, which he has observed, "when the surface generally is pale and clear, but a very distinct congestion exists over the cheeks; not a congestion like a blush, but one which is seen by the naked eye to depend upon the distension of small vessels, quite above the size of capillaries."

The Urine.—Albumen is the most common and most important of the abnormal ingredients of the urine, and though it occurs in various diseases, its presence, aside from "Bright's Diseases," is transient, and the quantity small. When we consider the fact that of all animal substances, albumen possesses the greatest endosmotic power, and must, together with the water and salts, pass from the malpighian capillaries, it seems somewhat strange that it does not appear as a constituent of normal urine; but in its passage through the tubule, it must subserve some further nutritive process, or receive some transformation by contact, either with the cells of the tubule, or with the solid excrementitious portions of the urine which are separated from the inspissated blood of the second set of capillaries.§

Of the urinary constituents, urea is also of great importance, as a measure of the activity of the general process of disassimilation—the wear and tear of the system.‖ Since its discovery in 1771, by Hillaire Rouelle, there have appeared in our literature numerous-

* Prof. J. Adams Allen, op. cit.

† Prof. Alfred L. Loomis. N. Y. Med. Record, May 1st and 15th, 1873.

‡ Op. cit.

§ Vide Harley, op. cit.

‖ Harley, op. cit.

and valuable observations upon this subject, with this conclusion as a general result: that urea, though found in the urine, is not formed by the kidneys, but that those organs merely excrete it; that it is not the special product of any particular substance or organ, but one of the products of the retrograde metamorphosis of all nitrogenized tissues.* In the diagnosis of this morbid affection, there are to be taken into consideration:

a. The mode of invasion; was it insidious.

b. The condition at onset; as this form never occurs as a primary disease in otherwise healthy persons, but as a sequel always.

c. The etiology; as if it be fairly due to syphilis, to scrofula, to long continued suppuration, to caries or necrosis, or to any other wasting malady, it is presumably waxy.

d. The prominent symptoms; as if polyuria has existed from the beginning, we should, judging from this alone, be compelled to class it as waxy. Of this symptom, a distinguished author remarks:† "it is an unfailing symptom at the early stage in the waxy form, and is absent only when inflammation becomes superadded, or diarrhœa is draining the blood of fluid."

e. The existing complications; the most common concomitant affections being a similar degeneration of the liver and spleen.

The great difficulty in diagnosis, however, is not so much in determining the form, as the stage; and for this we must depend upon our knowledge of the anatomical changes which are taking place in the kidney, as determined by:

a. The color and amount of the urine.

b. The amount of albumen; which early is scanty, later abundant, and still later again scanty.

c. The sediment; and its character as revealed by the microscope.

d. The size of the casts; it being evident that the cast formed in a tube which has been deprived of its epithelium, is larger than one from a tube not so denuded.

Of the importance of microscopy in this disease, Aitken says,‡ "without a microscopic examination of the urine from day to day, it is impossible to distinguish between a case likely to improve under treatment and one that may be regarded as hopeless, and

* Harley, op. cit. † Stewart, op. cit.

‡ Science and Practice of Medicine. 4th Edition, Vol. 2, p. 163.

without the daily use of the microscope, treatment becomes at the best but guesswork."

The pathology generally received is: that there is an amyloid degeneration occupying the place of the tubal epithelium; an amyloid or "*hyalin fibroid*"* degeneration of the walls of the blood-vessels, as follows:

1. The intertubular, or second set of capillaries.
2. The intercapillary vessels, or venules.
3. The malpighian capillaries, or capilliculi.
4. The afferent vessels.

Thence extending around the convoluted tubes, and malpighian tufts: that this substance subsequently contracts, and draws the malpighian bodies together; compresses the uriniferous tubules, and may entirely obliterate them: that this compression interferes with nutrition and tends to atrophy. And some pathologists regard this amyloid matter as a source of irritation, causing proliferation of the intertubular connective tissue,† and thus the production of a cirrhotic kidney, at the close of a history of waxy degeneration.

Of the complications most commonly presented, we learn from Stewart,‡ who has statistics of a large number of cases, that waxy degeneration of the liver exists in from seventy to eighty per cent. of the cases; waxy degeneration of the spleen in from seventy to eighty per cent., (Roberts§ says he found it in forty-eight out of seventy-seven cases); waxy degeneration of the alimentary tract in about fifty per cent.; pulmonary tuberculosis in about one-half of the cases; caries and necrosis in from ten to fifteen per cent., and that diarrhœa from vicarious elimination is quite common. The prognosis may be summed up in a single word—unfavorable.

The treatment of renal structural disease in any form, has not long been regarded as very promising; but increased powers of diagnosis, and the great advance made in the knowledge of their pathology have at least enabled us to separate those that we may regard as curable, from those the severity of which can at best be but mitigated. To be at all successful in treatment we must be correct in diagnosis; and not, having found a name for the disease, cease our endeavors to ascertain its cause. As we cannot, unfor-

* Proc. Royal Med. Chi. Soc. London, November, 1872.

† Phil. Med. Times, March 22d, 1873.

‡ Op. cit. § Op. cit.

tunately, procure physiological rest for these organs, we endeavor to make their task an easier one, by lessening the amount of labor to be performed, and inducing vicarious action of the other emunctories, and thereby at least gain time, which often becomes an important element of treatment. The perspiration, even in health, contains urea, chlorides, phosphates and sulphates;* and in disease even the insoluble oxalate of lime is sometimes found in considerable abundance.† The urinous odor of the perspiration and breath has been often noted, and urea found in considerable abundance in the intestinal evacuations; it may appear, says Harley,‡ "in all of the fluids of the body." Thus, as elsewhere, the teachings of physiology furnish us with a key to the proper mode of treatment. In this condition, the indications for treatment obviously are:

a. To check, if possible, the progress of the degeneration;

b. To prevent the addition of complications, particularly inflammatory ones; and

c. To palliate, as far as possible, the more troublesome symptoms.

And these indications we seek to fulfill by measures therapeutic, dietetic, and prophylactic.

The therapeutics seems at best but doubtful; remedies we doubtless have, but we lack the knowledge and skill to apply them, "no medicine having yet been discovered which would produce any direct effect upon the waxy degeneration itself."§

The first of these indications can be but poorly met. If we remove from the tubes, by any means, the obstructive exudate, which is constantly provoking degenerative inflammation, and hindering elimination by preventing secretion, we do all that we can hope to do, and for this purpose we have a remedy, digitalis, which will increase the secretion without stimulating the kidney,‖ as it will render the heart's movements more strong, energetic and regular, augment the arterial tension, increase the fullness and force of the pulse, contract the arteries and arterioles, and moderate the number of pulse beats in direct proportion to the elevation of

* Austin Flint, Jr. Physiology, 3d Volume. N. Y., 1870.
† Harley, op. cit.
‡ Op. cit.
§ Stewart, op. cit.
‖ Loomis, op. cit.

arterial pressure;* bearing in mind that digitalis has no influence upon the lamina of normal vessels.† This remedy was the one originally recommended by the distinguished discoverer of the malady, who gave it in combination with the bitartrate of potassa. It may be given in infusion, in small doses often repeated, until its effects are produced; then in larger doses, at longer intervals, to continue the effect.

In belladonna we have a powerful adjuvant to the remedy already considered; it does not lower the temperature as digitalis does,‡ but it increases the contractions of the heart and arteries and produces an increase of temperature throughout the body, without increasing the respirations, or interfering with them, save in the production of an occasional yawn or long-drawn sigh; this phenomenon in the case of my patient so alarmed his mother that she sent for me with a message that he was dying, at a time when he was comparatively quite comfortable. This medicine is rapidly eliminated by the kidneys, increasing the elimination of urea as well as of the phosphates and sulphates; but the urea is increased out of proportion. It has, besides, a direct effect upon the amount of albumen in the urine; Stewart§ says, "as soon as the constitutional effect appeared, the albumen diminished, and in the course of a month it could be discerned only by careful testing; that this was really due to the medicine, and not to the natural progress of the malady, was proved by the fact that, the medicine being suspended for a week, about the middle of the time the albumen increased."

In elaterium, when it is not contra-indicated, we have another powerful aid to the fulfillment of this indication, as it is eliminative of the urea, which has been found in abundance in the stools produced by it.‖ These stools are copious and watery, and have been well compared to water in which meat has been partially boiled.¶ Colchicum and guaiacum are also powerful eliminatives of urea.**

* Dr. Gourval. Gazette Medicale, December 30, 1871. In New Remedies for April, 1872.

† Dr. Rudolph Boehm. Pfluger's Archiv., Feb., 1872. In New Remedies for July, 1872.

‡ Waring. Therapeutics.

§ Op. cit.

‖ Bird. Urinary Deposits. 5th Ed.

¶ Waring. Op. cit. ** Bedford. Diseases of Women and Children.

The second indication is to be met by prophylaxis chiefly; the patient should remain in bed, in a temperature moderate and uniform; especially is this necessary during cold weather, when careful watching to prevent exposure to sudden draughts of cold air, is also necessary.

Flannel should be worn next the skin. The diet should be plain, easily digestible, nutritious, and unstimulating; in most cases, also, it will be proper to abstain from sugar;* tea and coffee without sugar may very properly be allowed, as both increase the excretion of urea, while alcoholics and beer should be avoided, as their effect is just the reverse of this.†

Great thirst is frequently complained of, and is satisfied, if at all, only by large draughts; and if it be first carefully explained that over-indulgence will produce unpleasant effects, the patient may generally be allowed to use his own discretion in the matter of drink; as, says Watson,‡ "he is better able than his physician to judge which evil is the greater—the torment of unslaked thirst, or the misery produced by over-indulgence."

The third indication is to be met chiefly by means already pointed out; for the treatment of the ascites so often present in these cases, and probably dependent upon the hepatic complication, elaterium offers a greater prospect of success than any other known remedy; though serviceable in other dropsies, it is particularly so in this; Stille§ says, "in cases of abdominal dropsy which resist these remedies [referring to diuretics], as too many will do, a more certain resource is offered by elaterium."

The anemia calls for the administration of iron, and of the ferruginous preparations the tincture of the chloride seems the most eligible, as, besides, it checks the drain of albumen.

I will now briefly recount the history of a case, from my notes taken at the time:

Case. H—— M——, aged 18 years; born in Buffalo, N. Y., of Irish parentage; first saw the case October 31st, 1873. Prior to present illness had been generally healthy, though of a marked scrofulous diathesis, as are all the other members of the family, *i. e.*, widowed mother and three other children.

* Prout. Stomach and Renal Diseases. 5th Ed.

† Harley. Op. cit.

‡ Practice of Physic. 4th Ed. § Therapeutics and Materia Medica.

In the summer of 1866, while at play, he leaped to the ground from the roof of a one-story school-house; was stunned, as might have been expected. For some time afterward nothing in particular was noticed, except that he had become deliberate in his movements, and soon he began to drag his feet as he walked, or shuffled along. Polyuria existed from the date of the injury. He has, during the seven years which have since elapsed, been under treatment continuously by various physicians of all schools. Has, as his mother says, been treated *principally* for: big liver; big kidneys; worms; *dropsy;* broken back; and abscesses, of which he has two, one discharging on the inner aspect of either thigh.

It appears that a short time (?) after the injury, a lumbar abscess proper (*i. e.*, in the posterior chamber of the lumbar fascia) was noticed, which ran its course; later the two psoas abscesses appeared almost simultaneously, and have discharged continuously ever since, during which time the bodies of *some* of the dorsal vertebræ became involved, and a very decided anterior curvature has resulted from the Potts disease.

On examination he presents a leuco-phlegmatic aspect, and the peculiar pallor of which I have spoken; general nutrition of body poor, very much emaciated; in bed, in a sitting posture, unable to assume any other on account of the orthopnœa, which is very troublesome; is anasarcous markedly, and, besides, has ascites; abdomen much distended, smooth, white, and shining; temperature 96½° F. (morning temperature) and apparently cooler; skin dry; pulse 90, irregular, small, and weak; respiration 18, and normal in character, if the position be not taken into account; appetite very good, eats almost anything, and appears to enjoy his food; thirst not at all excessive; bowels a little loose but regular; stools normal in appearance, but smelling very badly; urination not at all painful; amount passed in 24 hours, about 20 oz., sp. gr. 1011½, of a pale straw color; the natural urinous odor replaced by a faint, unpleasant one; albuminous, the coagulum being one-fourth the height of the quantity tested; on microscopic examination the urine was found loaded with uric acid and phosphates, amorphous and crystallized; sediment consisting largely of large, pale, hyalin casts, averaging in diameter about 1-1800 in. (camera lucida); some disintegrated *tubal* epithelium, a few disintegrated blood corpuscles, together with the uric acid and phosphates al-

ready alluded to. The patient, aside from the orthopnœa (avoided by position), and the annoyance caused by the discharge from the abscesses, seemed quite comfortable, not at all restless, somewhat drowsy, but generally cheerful and contented.

No particular pain was complained of. Paralysis of both lower extremities was complete, showing that the spinal cord had become involved; the bladder and rectum were, however, uninterfered with. The heart was found somewhat hypertrophied, but gave no further evidence of disease. The liver was found slightly enlarged; its lower border and surface nodulated. The area of splenic dullness was increased, but, owing to the ascites, its size could not be accurately made out. I regretted that I could not avail myself of the means suggested by Dr. Stewart* for diagnosing the splenic degeneration. Resonance on percussion over both lungs was normal, and auscultation gave no evidence of disease. The penis and scrotum were œdematous.

My diagnosis was: Waxy kidneys, liver, and spleen; consequent upon the prolonged suppuration from which he had suffered; and that the concussion was the exciting cause of the first manifestations of morbid action, to which the others were but sequelæ.

I gave him a mixture composed as follows:

R. Fl. Ext. Belladonnæ, . . . m. xxjv.,
Fl. Ext. Colchici Rad., . . . f. dr. jss.,
Tinctura Digitalis, . . . f. dr. iijss.,
Syr. Aurantii Cort. Dulc., . ad f. oz. ij.,
M. Sig.: Teaspoonful ter in die.

Under the influence of which the general dropsy disappeared, save from the ankles, feet, and genital organs, the ascites partially remaining; his condition was now rendered more endurable, as he could lie on his back or on either side at will. The bowels became a little more loose, and his condition seemed improved. I say seemed, because it was apparent that the powers of life were nearly gone; he sank gradually, and died on the morning of November 28th, 1873. An autopsy was persistently refused. This I regretted very much, as I wished and expected to present

* Lecture on Waxy Kidney. Med. Times and Gazette, London, June 13th, 1873.

the specimens, having neglected to make either drawings or permanent preparations of the urinary sediment, or a careful quantitative analysis of the urine.

ARTICLE III.—*Review of the Article entitled "Infants and their Food."* By G. NEWKIRK, M.D., Low Point, Ill.

The paper in question published in the March No. of the CHICAGO MEDICAL JOURNAL appears to me to call for a few comments by way of criticism. It commences with the report of a case, which is at once interesting and instructive, the description thereof being well written. The previous treatment of the case was properly criticised, and the course of diet and regime directed by the author, eminently proper under the circumstances as described.

We can readily understand how with natural food and sleep "came the angel of health and brought joy to the parents, life to the sufferer, and to him a great lesson," but we may fail entirely to see the legitimate fruits of such lesson in that which follows from the author's pen.

Let us see. A child is deprived of all proper food and as a matter of course it starves! The physician finds it in a starving condition, being *dosed* but not *fed!* Milk—"cow's milk from the pan"—without any addition to or subtraction from it, fresh from nature's laboratory, is given, threatened failure of the powers of life is averted, and the functions of growth renewed. That the preceding attendant had failed to discover the simple condition of starvation, and prescribe the still more simple remedy of food, was certainly to his discredit. That our author did what his predecessor had failed to do, speaks well for his practical sense.

But we cannot from the author's observation of this case infer that the addition of sufficient water to the milk used for the purpose of equalizing the relative proportions of fluid and solid, in accordance with the constitution of human milk, or that the addition of two per cent. of sugar would have been otherwise than beneficial; neither that the addition thereunto of sweet almond or cod-liver oil—both so liable to detestable adulteration—as recommended by the author further on, would have not proved injurious. We are

decidedly of the opinion that *no addition* would be far preferable to that which he recommends but does not tell us he has tested practically.

Every member of the profession must have seen results equally tangible with those here reported where the usual additions were made. When we come to consider quantitative analysis we can only approximate a standard with regard to organic fluids. Circumstances of a varying nature, such as diet, exercise, emotion and constitutional tendencies, must always vary the constitution of the secretions, including milk. No two chemists can give us the same tables, and for obvious reasons.

Liebig gives us a general and simple analysis, classing together the sugar and the oils as follows:

	Nutritive.	Respiratory.
Cow's milk contains,	10	30
Human milk contains,	10	40

(*Attfield.*)

	Water.	Solids.	Casein.	Sugar.	Butter.	Salts.
Human,	889	111	40	44	27	2
Cow,	864	136	55	38	36	7

(*Pereira & Lehmann.*)

	Water.	Casein.	Butter.	Sugar.	Salts.
Cow's milk,	870.2	44.8	31.3	47.7	.6

(*Simon.*)

	Casein.	Butter.	Sugar.	Salts.
Human milk,	35	25	48	2

Observe what wide differences! According to Pereira & Lehmann the proportion of casein in cow's milk is represented by 44.8, according to Simon, 68; a difference of 23.2! By balancing the different tables as nearly as we may, we arrive at the following conclusions: 1st, that the excess of casein in cow's milk as compared with that of woman is about twenty per cent., or about eight parts in 1,000; 2nd, that sugar is *deficient* in nearly the same ratio; 3rd, that the amount of fat is about equal—according to Attfield we see that the balance stands very much in favor of the cow's milk. According to Simon (whose table our author quotes) the amount of butter in human milk is but 25 less than any authority I can find gives for cow's milk.

The amount of butter contained in milk varies greatly in different animals of the same species, as all butter makers know. The butter making qualities of the cow do not depend so much on the *quantity* as the *quality* of her milk. The *quality* is, in turn, dependent on two conditions, viz., *amount* of cream or butter, and the proportion of its oils. The last of the milking is richer in butter than that first drawn.

The ratio of the solid to the fluid increases with the age and requirements of the animal to be nourished; therefore, other things being equal, the milk of the farrow cow is richest in tissue-making substances, more especially of casein.

In the healthy human being corresponding conditions must naturally obtain. A gradual change must ensue in the wants of the growing child, and the constitution of its food should in the nature of things bear a gradual modification. Nature here takes the initiatory by gradually increasing the *quality* of milk to meet the requirements of increasing strength, while *quantity* is diminished to admit the digestion of other and more solid aliment. Bear in mind, however, these rules hold good in the healthy mother only, who has not been reduced in strength by multitudinous cares and labors, or an impoverished diet superadded to a prolonged lactation.

Again, we notice that all authorities agree, with but little variance, as to the disproportion existing in the amount of sugar in the two kinds of milk. This disproportion is probably less varying than that of any other element contained in milk; the tables at my command varying from 31 to 38 in that of the cow, and from 44 to 48 in that of woman, showing a difference of about twenty-five per cent.

The young infant relies upon milk for both food and drink; hence it is important that the proportions of fluid and solid should correspond with its wants. We add a little water to make good these proportions, and not, as our author observes, for the purpose of "diluting casein." However, it is not true, as he states, that casein in milk is not dilutable with water; alone it is not, but in milk it is in a compound with soda, hence as divisible as any salt already in solution. (Youman's Chemistry, p. 390.) As to the exact quantity to be added, experience as well as sound philosophy justifies us in being governed by the age and general health of the

child, as well as its digestive tone. As a rule, the strength of food upon which the child will grow, and bears without vomiting or diarrhœa, is for the time being proper for it. With increasing age, quality as well as quantity should be increased. We do not add sugar, as our author states, to promote the digestion and assimilation of casein, but simply and alone to supply a want, and in such proportion as nature demands. We presume that whatever nature furnishes in the mother's milk, she has use for in the system of the child, both in amount and kind. Just how sugar is assimilated we cannot tell, but this we know, that it is *essential;* a *carbo-hydrogen*, hence, respiratory, and a brain and nerve food; that as an aliment it can largely take the place of fat.

Inasmuch as the young and nursing infant eats no starch—out of which sugar is made—nature provides the sugar of milk, and if we accept and follow out her teachings we are bound to supply at least an equal amount to the hand-fed child. In accordance with what seems to be the physiological indications here set forth, we find the natural appetite craving sugar. If a natural and unperverted appetite is in any instance to be relied on as an indication of systemic wants, certainly it may be here.

We have yet to learn that simple redness of the mucous surface, which always occurs during digestion, is an inflammatory indication, as stated by the writer. The author should certainly be able to draw a distinction between inflammation and a physiological afflux of blood, ever taking place in the part temporarily called into increased activity.

We heartily concur with him in his denunciation of elixirs and all unknown and advertised compounds; have no objection to the theory of Lehmann, "that a certain, though small quantity of fat is indispensable to the metamorphosis and solution of nitrogenous articles of food during the progress of gastric digestion;" adding, however, that there can be no doubt but the "small quantity" can be found in fresh cow's milk at any time, and without the addition of sweet almond or cod-liver oil.

Considering that the study of carcinoma and tuberculosis cannot properly be entered into in a paper of this kind, and that the random shots taken by the author at these and various other questions are far from the mark of the high calling in which he thinks himself engaged, we will pass them by and proceed to

notice his experiments with bottles and milk. We will repeat his statement of them briefly:

No. 1. Cow's Milk, with vinegar.
No. 2. " " " almond oil and vinegar.
No. 3. " " " water (half and half) and vinegar.

He then proceeds to tell us that "in No. 1 the casein separated slowly from the whey *and settled on the bottom of the vial*," (mark the emphasis), "the precipitation being not quite complete."

"In No. 2 the casein separated completely, but the *coagulum was decidedly more flocky, and, what is very remarkable, it floated on the clear whey.*" (Mark the emphasis.)

In No. 3, according to his observation, precipitation failed to take place.

Remarks. The rapidity and completeness with which coagulation of casein takes place under these circumstances depends upon the amount of acid added; in this case it was insufficient, "precipitation being not quite complete." In the repetition of his experiment by himself he states that there was a more distinct separation, owing to the increased amount of vinegar added. Casein thus precipitated has scarcely specific gravity enough to carry it downward; again, it holds a large portion of the butter entangled in its meshes, which tends to float it; however, if left undisturbed, it finally settles to the bottom of the vial.

In No. 2 we deny that coagulation could have been any more complete. Let any one make the test and see for himself the fallacy of the author's deductions, so called. We can easily account for the fact which the author considers so very remarkable, viz.: that "*the coagula floated on the clear whey.*" The oil of almonds, in addition to the butter, becoming admixed or entangled with the flocky precipitate, floated it to the top, as we will make plain a little further on. There were not two distinct precipitates, one which floated, and the other which fell; finer flakes or more regular in outline, or which were first at the bottom when coagulation commenced, failed to entangle sufficient oil to float them, and, as in No. 1, slowly fell.

In No. 3 we are utterly at a loss to understand how the gentleman could so fail in correct observation.

In order to thoroughly test the correctness of the author's theories, as well as his facts—so called—let any one who will, institute

the following experiments: Add to an ounce of fresh milk twenty drops of almond oil and sufficient vinegar to coagulate the casein. If the mixture is shaken while coagulation is going on, or afterward, the oil will float the curd, or the principal part of it. If the mixture stands for a few moments previous to precipitation, the oil will quickly find the surface and the coagula will slowly settle. The same amount of vinegar added to the milk without the oil will just as readily throw down the curd, and there will be no difference in the appearances of either curd or whey as compared with the first experiment. We took skimmed milk, from which nearly all the butter had been taken; to three drachms of this we added four drachms of water and two scruples of vinegar, and coagulation at once took place, leaving the transparent water and whey. We repeated the experiment with *one drachm of skimmed milk to six drachms of water*, and this, with a few drops of vinegar, precipitated more rapidly than the first! There was no difference in the appearance of the precipitate; it settled more readily, not because it was heavier, but because there was very slight, if any, admixture of *oil*. In either instance, on the addition of a small amount of oil after coagulation and the mixture being shaken, the oil would carry the curd upward and retain it there. According to the author's idea the precipitate resulting from such a quantity of menstruum would have been too heavy to float.

Thus we find that our friend's experiments prove nothing. With all due courtesy we must beg leave to remark that his facts —so called—are as false as his theories. The article in question only goes to show how far a little knowledge—diffused surface reading—with a few coincidences and a disposition "to revolutionize," may carry a sensible man toward the climax of absurdity even unto the claimed demonstration of absolute nonsense.

To conclude, we maintain our adherence to the following rules:

1st. That casein in milk is dilutable as well as other solid constituents, and that ordinary dilution does not interfere with digestion; therefore, that it is proper to dilute cow's milk with water in proportions varying according to the age, health, and digestive tone of the child to whom it is to be fed.

2nd. That the addition of sugar to make good the percentage as in human milk, is proper, physiological, and necessary; that it does not tend to intestinal irritation nor interfere with digestion,

even though given in slight excess of the actual requirements of the organism, being easily appropriated and of an unirritating nature.

3rd. That no addition of any extra fat is necessary to cow's milk when properly selected; that if any should be given it should be in the form naturally belonging to milk, viz., cream; that the milk last drawn from the cow contains as much and usually more fat than human milk.

4th. That, while the system of the infant may reject and dispose of as residue any supply of proximate principles moderately in excess of its wants, it *cannot supply an absolute deficiency.* Supply should at least be equal to demand.

Finally, we wish to express our admiration of the sentiment quoted—"The hand that rocks the cradle is the hand that rocks the world"—whether it be that of noble woman, the boy who has nothing else to do, or the baby who is old enough to rock itself. We think the sentiment more applicable, however, to Him who rocks the cradle of the deep.

ARTICLE IV.—*Review—Chicago Medical Journal, April,* 1874. By a Country Contributor. [Z. C. McElroy, M.D., Zanesville, O.]

The opening article, the Valedictory Address of Prof. Miller, contains a very admirable *resume* of the results of modern scientific and philosophic researches and investigations, stated explicitly, and in many parts eloquently. It should have commenced with the first paragraph on page 195. The statement made on page 200, that the doctrine of evolution excludes creation and theism, is only true when limited time is admitted as a factor. But as time, so called, is only the relative position of the moving heavenly bodies to each other, it is not properly a factor in the premises at all. "God pays in full, but not every Saturday night," is a homely way of excluding time from some of our calculations. "The mill of God grinds slow, but fine," is another mode of expressing the same idea.

The Professor has evidently not paused to study patiently, and in all its bearings, in the light of modern science, the quotation he introduces from the Bible, on page 201. Nothing is said about time in it; not likely to be an accidental omission in the inspired text.

The first paragraph on page 198 should have quotation marks at its commencement, and after the interrogation point at the end of the second paragraph, and possibly at other places.

Prof. Miller, like some clergymen, seems not to have known when his address was ended, or at least that part of it extending from pages 193 to 202, relating to the conservation of energy, or he would have omitted all on pages 202 to 205. He had said enough to arouse the attention of his graduating class to apply themselves to the work of ascertaining how far and to what extent the great truths he had just stated would affect practical medicine. There he should have left them, each free to work for himself. Instead of that, however, he points out lines of investigation which must bring them back into the same old ruts from which they started. Better for them it would have been had he told them, in the language of Helmholtz, "*Wer bei der Verfolgung der Wissenschaften nach unmittelbaren praktischen Nutzen jagt, Kann Zeimlich sicher sein dass er vergebens jagen wird.*"*

It is to my mind a great blemish on an otherwise really excellent and thoughtful address, to have made such statements as those in regard to the "chemistry" of "disease," as well as the "poisons" that cause them, and the chemical means of "cure," which appear in it.

Everything pertaining to living beings and things merge themselves into questions of materials, forms of organic structure, and the forces concerned, or modes of force concerned, in their evolution, and decay or loss. "Disease," "poisons," and "cure," are words which appear very properly in "Good's Study of Medicine," but are certainly out of place in casting the horoscope of medicine in the presence of the great general principles he had just annunciated.

On the whole, the address is excellent, and but for these defects, would do credit to any professor in any medical school in existence.

The second article—Myelitis—by Professor Hay, a model of exact and careful observation, and record of results, is introduced to settle a diagnostic point—for the case has already been

* "He who in the pursuit of science seeks directly practical applications, can be pretty sure that he will seek in vain."—*J. Matthews Duncan, Address at Edinburgh, December*, 1873.

reported under another name—supplying evidence for the ten thousand millionth time, that to map, and fix with exactness, the disturbances of the moving equilibrium on which life depends, has always been a failure in the past, and will continue to fail to the end. Doubtless Prof. Hay is right in his diagnosis so far as he goes, but he falls short of "the whole truth;" to show which, it is only necessary to inquire if the balance of the patient—excluding his brain and spinal cord—was well. His exact observations show conclusively that the disturbed equilibrium of the patient's brain and spinal cord was only an incident in the disturbance of the forms of organic structure, and the equilibrium of motion in his structures generally. Was the "myelitis" a cause, a consequence, or coincidence of the universal disturbance of structure, and motion in structure, as evidenced by the changes of function recorded by him?

The facts probably were, that there were wide-spread modifications and losses of "function," which would not and could not have been the case had the patient's structures had their normal molecular arrangement of material, and motion of material. The mean of the various velocities of motion in his structures, as evidenced by his temperature, was natural, and that was about the single feature the patient presented that was so.

The neighboring "practitioner," incidentally called in, who prescribed very properly for the "disease"—pain—evidently without studying the case, was, doubtless, and unintentionally, instrumental in hastening the end. It occurs to me, however, that in the professional management of the "disease" the patient was partially, if not wholly, lost sight of; affording evidence, again, of the misleading character of the "London College's" map of 900 separate and distinct "diseases," so recently published, and so widely respected. The real state of things existing at the time of Prof. Hay's first visit, or connection with the case, was that structural forms of material were extensively lost, or changed, as evidenced by changed and lost functions, so concisely described by him.

The original or remote cause, in all probability, of this derangement of structure, was a failure on the part of the patient's structures themselves to provide for their own reproduction from new material as they were wasted by function; or a failure of the

"lymphatic system" to collect the material in which living structures store up the so-called "vital force," and restore it, with new material, at the proper time and place, near the right auricle. This is rendered all the more certain by the patient's age, 65, for at that time of life the structures are naturally "failing," and if they did not fail, none of us would ever grow old, or die—we would be immortal.

From Prof. Hay's admirable description of lost and modified functions—behind which there were modifications, or loss of the natural structural arrangement of material—it seems to me that the primary failure was in the lymphatic system. The patient's age, the season of the year, etc., all point in this direction.

The third article, by Dr. Stewart, abounds in evidence of the mistake made when the "disease" is the object of professional management, instead of the patient. It is so easy to play marbles, and so difficult to play chess, especially with a skillful opponent. We take up this marble—some drug or medicine or combination—and "plump" it at the "disease;" if it misses, try another, and so on. Why not? As the boys say, "aint there fun in shooting, whether you hit or miss?" Not so in chess. Like the effective work in nature this is played in secrecy and silence, the results, in the motions of the "men" are only apparent.

In Dr. Stewart's case there was from the first hopelessly lost or modified structural arrangements of the materials of his patient's body. He played marbles with it, and failed to win the game. Had he played chess, with Stricker, and Rindfleisch, and Van der Kolk, as instructors, his patient would have taken less "drugs and medicines," and his professional interference would have been confined to "possibilities," or "probabilities," with less "chance" in the game. Modifications, or loss of the normal structural arrangement of living bodies, upon which function depends, cannot always be restored by "drugs and medicines." All the positive evidence on the subject is in the negative. Symptoms and appearances may sometimes favor such a "belief," but external demonstrations are against it. The "scars" alluded to on page 227 (No. 7) do not favor such a "belief." Amputated limbs are never reproduced. Opacity of the lens in the eye is only remediable by mechanically removing it.

Still, working in the accredited channels, Dr. Stewart treated

his patient industriously, if not successfully. I do not censure him. Twenty years since, in accordance with my instructions, I treated "diseases." Now, I regard my patients as altogether of more importance than their "diseases."

The fourth article, by Dr. English, is only interesting as showing just what has happened in the development of a fœtus when some of its "organic forms of structure" were left out, in consequence of deficient or misdirected force.

PROGRESS IN MEDICAL SCIENCES.

The first article, Neuro Pathology and Psychological Medicine, by Prof. Hay, is a statement of the "conclusions" of Dr. Mendel in regard to "differentially" diagnosing typhus from insanity, affording evidence, again, of the utter inutility of efforts to affix exactness to the shifting and ever changing phenomena when the equilibrium of health is disturbed in different bodies, no two of whom ever were or are likely to be "exactly alike." The facts in regard to typhus and insanity are, that in both there is always disturbance of structural arrangements of material, and sometimes loss, as evidenced by changed or lost functions. Dr. Barnes, in his recent work on "The Diseases (?) of Women," says, in regard to "neuralgia" of the uterus, "histeralgia," etc., that they are terms calculated in their use to "lull the spirit of inquiry by fostering the belief that they embody a pathological entity." And so of typhus and insanity, "they took their rise at a period when the precise and minute investigations at present in vogue were comparatively unknown," (Barnes, p. 99,) and therefore "no longer satisfy any but those who are satisfied with the imperfect pathological knowledge of the past."

2. Dr. Eulenberg's case, again, shows not a "disease," but a modification of the structural arrangement of the tissues of a boy by mechanical violence, as evidenced by permanently changed functions.

3. So of Dr. Charcot's observations; all concur in showing changes, or loss of the structural arrangement of material, behind changed or lost functions.

4. Prof. Ferrier's physiological experiments, in their results, point to the same general facts.

5. Dr. Hallock's suggestions in regard to hospitals for the insane are in accordance with the experiences of our late war, that barracks, or hospitals, not for the insane alone, but for all other sickness, is one of the mistakes of the past.

The 2nd article, by Dr. Jackson, offers nothing for special remark, but is, nevertheless, interesting in several particulars, as anomalous statistics, etc., in reference to gynæcology.

The 3rd article, by Lecturer Owens, is of the same general character in reference to surgery. Its feature, however, is the

emphatic confession of Prof. Gross of our total ignorance of the pathogenesis of tumors. Prof. Gross' confession is both timely and truthful; and as it takes "thunder" to wake some of us up, is an important addition to the "capital stock" of us agitators for an "advance" in our conceptions of physiological and pathological processes, and the therapeutics which will naturally follow them. Prof. Gross makes an effective iconoclast. Instead of casting my lot with his "wandering or mobile connective-tissue cells," I prefer to study force, as it is "stored" up in material, as the central feature of all tissue, natural or neoplasms, physiological or pathological.

Hospital Report, by Surgeon Lyman. Gynæcological reports are, by some of us, naturally regarded with suspicion. As directing attention almost exclusively to deceptive local appearances, they are mischievous; for many of them disappear spontaneously, while some are probably hastened in their departure by local in connection with general treatment. Like the government published report of "Columbia Hospital," they make good "padding." Dr. Barnes, in his just published work on Women, iterates and re-iterates the fact that structural changes are always found behind changed functions. And "structural changes" are not to be rectified by local applications through speculums alone. The Editor-in-chief (Prof. Allen) has told a good story in reference to an elderly practitioner who called upon him for information in regard to a proper location, as he had been compelled to abandon his life-long field of labor by a new doctor who used a —— horn, and had taken all his practice. His advice was significant of his opinion of indiscriminate "speculum practice." Address Prof. Allen for particulars.

The Clinic, by Lecturer Bridge, supplies some needed knowledge in regard to the part played by the little trichina insect in changing the structural arrangement of living tissue, demonstrating that changes of function are inseparably associated with changes of structure. The changes effected by the parasite in living tissue, so far as function is concerned, differs in no respect from that by "sclerosis," (so called) except in the possibility of patients pulling out of trichinosis, which never occurs after "sclerosis."

Society Reports—That of the Chicago Medical Society has been anticipated, to some extent, by the publication of Dr. Lyman's report on gynæcology.

Prof. Owens' report points out the usual structural changes behind changes of function in his case of "Parietal Gaseous Abscess," which, it seems to me, offered a good opportunity for using the "aspirator."

Dr. Heydock's case of empyema also presented an excellent opportunity for using an "aspirator," besides showing very conclusively that living beings have no greater enemies in nature than

the results of the decay of their own bodies. The "pus" in the pleural cavity was, in its chemical state, a sort of nitro-glycerine; and in its situation material foreign to the body of the patient, storing up "force," which seriously threatened the patient's life several times, necessitating its removal by "paracentesis," when "nutrition," *i. e.*, the normal movement of new material into living tissue, was resumed. But the sequel makes known that structural forms had been lost—a terrible word and fate for a living being, old or young—necessitating the use of the drainage tube permanently.

The proceedings of the Central Illinois Medical Society, interesting as they undoubtedly are, as reported, do not offer anything for remark, except that with a clearer understanding of the real pathology—that is, state of the structures—no medical man will remark that "uræmic poison is not a cause" of puerperal convulsions; for the so-called uræmia is actual demonstration of the changes of structure which have already occurred.

Editors' Book Table notices several new books, and appends a list of pamphlets and journals received.

Editorially, the Philadelphia University of Medicine gets another ventilation. The Chicago Board of Health gets aired in no enviable light; and some space is occupied by considerations growing out of a bill before the State legislature to create an "Asylum for Imbeciles." And the suspicion of the editor that there is a "nigger in the woodpile," is, without doubt, correct. Illinois is not the only State, nor Chicago the only city, which groans under the weight of State and municipal "Boards" for various purposes, but generally operated in the interest of some ring or clique, with an amazing amount of cutlery which needs grinding.

The City Mortuary Report closes the number.

It requires some such an analysis as this to bring out the merits and defects of any particular issue of any periodical. And truth compels the admission that, in the present case, it is no mean showing. It is, in truth, a really good number, not wholly without blemishes in the make up and matter of some of its contents. It affords some evidence, at least, that progress is being made in removing the obstructions which so seriously impede the arrival of the "good time coming," when medicine shall be honored of all men. And to hasten which this review has been written, not in the spirit of fault-finding, but with cordial good will to editors and contributors.

Messrs. W. B. Keen, Cooke & Co., the publishers, present the JOURNAL to its readers in faultless typography, on beautiful paper, the whole mechanical execution being an honor to the publishers' art.

Progress in Medical Sciences.

ARTICLE I.—*Progress of Surgery.* By JNO. E. OWENS, M.D., Lecturer on Surgery, Rush Medical College, Chicago.

1. *Bloodless Surgery of the Extremities.* By J. E. KELLY, L.R.C.S.D. (The Medical Press and Circular, Dec. 17, 1873.)

2. *On Laryngotomy.* By J. MORGAN, F.R.C.S. Read before the Surgical Society of Ireland, Jan. 16. (The Medical Press and Circular, Feb. 4, 1874.)

3. *Sarcoma Testis;* in which the testicle was retained for many years in the inguinal canal, but eventually descended into the scrotum, and in which, on removal, a portion of the omentum was found adherent to the diseased gland. By HENRY J. TYRRELL, F.R.C.S.D. (The Medical Press and Circular, Feb. 4, 1874.)

4. *A Case of Primary Excision of the Ankle Joint; with Observations.* By HENRY LEE, F.R.S. Transactions of Royal Medical and Chirurgical Society. (Medical Press and Circular, Feb. 11, 1874.)

5 *The Operation for Recto-Vaginal Fistula.* By H. T. WHITTELL, M.D. (London Lancet, Feb., 1874)

6. *Tumor of Thigh, composed of Muscular Tissue.* Under the care of Mr. JNO. WOOD, King's College Hospital. (London Lancet, Feb., 1874.)

7. *Hereditary Exostoses.* Under the care of Dr. POORE, Charing-Cross Hospital. (London Lancet, Feb., 1874.)

8. *A New Plan in the Treatment of Erectile Tumors by Vaccination.* By Dr. P. BATHEDAT, of Bayonne. (London Lancet, Feb., 1874.)

9. *The Efficiency of Enemata.* (Philadelphia Medical Times, Feb. 7, 1874. Archiv. fur Klinische Chirurgie. Boston Medical and Surgical Journal.)

10. *Extirpation of the Larynx with the Epiglottis.* By Professor BILLROTH. (The Clinic, Feb. 28, 1874. British Medical Journal, Jan. 31, 1874.)

1. Dr. Kelly states that the operations upon which Esmarch's method confers the greatest advantages are those in which much blood is ordinarily lost, or those performed under circumstances which prevent the operator from providing efficient aid. Amongst the former, resections and explorations, either for foreign bodies or where preliminary investigations are judicious, may be specially noticed. These preliminary measures, so conservative in their aim and results, have often been frustrated by the danger or dread of consequent hæmorrhage. Against the obvious advan-

tages of the expedient, we must, in justice, weigh some well-founded objections. In cases where collections of septic matter exist, Esmarch warns us against the danger of favoring by pressure its entrance into the circulation. The absence of bleeding points during the operation may cause us to neglect to secure some vessels which will subsequently be troublesome. As observed in amputations performed in Guy's and other hospitals, the edges of the incisions may slough.

(In a case of re-amputation at St. Luke's Hospital, recently, in which operation Esmarch's method was employed, the edges of the incision sloughed. It is not, however, our opinion that the employment of the above-mentioned method was productive of sloughing in this case. This process (sloughing) was confined to the old cicatrix, which closely resembled cartilage—just such tissue as will almost invariably slough away after re-amputation, which was demanded in consequence of sloughing of flaps after the primary amputation. O.)

I noticed this in my first case only, says Dr. Kelly, and my observations on it and the succeeding cases induce me to regard the sloughing as proportionate to and dependent on the *duration* of the pressure by the elastic bandage, and not to the *bloodless condition* of the tissues. I regard sloughing as unimportant in those cases which are really benefited by the method. In amputations and other operations which can be completed in a few minutes, I cannot recognize the necessity of departing from the old and efficient method of controlling hæmorrhage by direct arterial compression. Where the surgeon must necessarily amputate without sufficient skilled assistance, he is free to select between the immediate danger of hæmorrhage and the remote disadvantage of sloughing of the flaps. The quantity of blood lost during operation is frequently a most desirable antiphlogistic. By Esmarch's method, for good or for evil, this is prevented, and severe inflammation may follow the operation; however, in such cases the surgeon can resort to phlebotomy, or other antiphlogistic treatment. Again, in disease or predisposition to congestion in any of the important viscera, as the lungs or brain, we may well hesitate before we throw the entire amount of blood contained in a limb, either temporarily or permanently, into the general circulation. We must also remember the possibility that this quantity of blood

may embarrass the pulmonary circulation, and aid in developing the fatal effects of the anæsthetic.

2. The paper treats of this operation (laryngotomy) as performed in cases of chronic syphilitic laryngeal disease, where the affection may either directly endanger life by its interference with respiration, or by wearing down the patient by its exhausting irritation.

3. The author states that in this case, which he is about to bring under the notice of the Society (Surgical Society of Ireland), a complication was found which, as far as he had been able to discover, had not before been placed on record. The subject of the communication was a farmer, aged 45 years, the father of five children. He had a large scrotal tumor on the left side, about the size of a small melon, heavy, smooth and elastic; the skin moved freely on it, it had no impulse on coughing, and the cord, though thickened, could be distinctly felt. There was no enlargement of the lumbar glands. It was not translucent. Dr. Tyrrell tapped the tumor with the aspirateur, and drew away half an ounce of arterial blood. A solid enlargement of the testicle was diagnosed, but the true nature of the enlargement was not made out. The patient stated that for many years he had no testicle on the left side in the scrotum, but a soft lump in the groin; that, when he was about twenty years of age, it descended into the scrotum and became painful; but that he was able to press it back again into the groin, where it would remain for a few days and descend again. During the last six years the tumor has grown larger and harder, and during this time he has been unable to press it back into its original position. The case lacks the history of injury or venereal taint.

On the 13th of last September he returned to Dublin, having been in the country, and was admitted into the Mater Misericordiæ Hospital. The testicle had increased much in size, and had become very inconvenient from its weight and size. At a consultation, Dr. Tyrrell's colleagues agreed with him that it was a sarcomatous tumor, and should be removed. Two other surgeons of great eminence saw the case, and coincided in opinion with Dr. Tyrrell, but none suspected the complication that was discovered at the operation.

Upon cutting down on the tumor, Dr. Tyrrell found a portion of the omentum in the tunica vaginalis, and intimately attached to the testicle. It was agreed to ligature this portion of the omentum with a carbolized gut ligature, and return the stump and ligature into the abdomen. The cord was tied en masse with a strong hempen thread, and the diseased gland and the portion of omentum attached was removed. No bad symptom appeared, and the wound quite healed twenty-five days after the operation. The tumor proved to be an example of spindle-celled sarcoma.

4. The author describes what he believes to be the only case in which complete primary section of the ankle joint has been performed, and advocates the plan, both in primary and secondary excisions of the joint, of dislocating the tibia and fibula outwards, so as to allow of the articulating surface of the tibia being removed with comparatively little disturbance to the surrounding parts. The articulating surface of the astragalus is also more easily removed in this way than by dislocating the bones of the leg inwards, as has commonly been attempted in secondary excisions. The plan advocated is to remove the internal malleolus first, and then the tibia and fibula may be dislocated outward through the external wound with great facility, and without interfering with any important structures. Such a mode of operating has not, he believes, been hitherto described.

5. Dr. Whittell (Hon. Medical Officer, Adelaide Hospital, South Australia), operated in the usual way, and, having brought the edges together with wire sutures, ordered opium to be given daily, with a view to prevent any action of the bowels. The sutures were removed after the lapse of ten days, when it was found that the operation had failed. Between two and three months subsequently, a second operation was performed, and this also failed. After these disappointments, the author began to question whether the usual plan of locking up the bowels with opium for several days after the operation, was not the real cause of failure. On each occasion the case progressed favorably during the first few days, and it seemed to be probable that the accumulation of fœcal matter, and its subsequent passage along the rectum in a hardened condition, tore open the tender structure by which the pared edges of the bowel were united, and thus spoiled the operation. The usual

operation was performed for the third time. On this occasion, however, instead of locking up the bowels, castor oil sufficient to keep the bowels moderately relaxed, was ordered. Two or three fluid motions were passed daily without pain or inconvenience. When the sutures were removed, perfect union had taken place.

6. A butcher, aged 27 years, after hard dancing, suddenly felt something give way at the inner and upper part of the left thigh, and found a small lump had formed there. The accident was accompanied with nausea and subsequent occasional vomiting. When lying down the tumor disappeared, but returned when he assumed the erect position. At one of the London hospitals, two or three days after the patient discovered the tumor, an obturator hernia seems to have been diagnosed. Upon admission (to King's College Hospital), there was a tumor about the size of a hen's egg, at the inner and upper part of the front of the left thigh, one inch and a half below Poupart's ligament, to the inner side of the saphenous opening, which was quite free. The tumor was apparently situated immediately upon the adductor longus muscle. It was elastic and non-fluctuating; there was no impulse on coughing. The skin was freely movable over it, but the tumor could be isolated, or moved independently of the deeper parts. The patient had a constant pain all down the inner side of the same thigh, extending over the left buttock and loin. The tumor was largest when the knee was flexed, and the thigh maintained by the patient in an everted position; but when the thigh was supported, and the patient told to allow the limb to drop, and thus to relax the muscles, the tumor entirely disappeared, but when told to adduct the thigh, the tumor stood out again as before.

Mr. Wood finally made an incision over the tumor, and carefully divided the fascia, and immediately came upon a mass of muscular tissue, of which the tumor was composed, and it was evident that a hernial protrusion of a portion of the muscular belly of the adductor longus had taken place, through weakening of its aponeurosis, and thus given rise to the tumor.

7. A clerk aged 27, was studded with bony tumors, ranging in size from a small marble to an orange. The patient's little daughter, aged four and a half years, was a complete miniature of her father, and presented exostoses in most of the situations where

they were observable in him. Her first exostosis was noticed when she was nine months old. The patient states that his maternal grandfather presented the same phenomena. One of his sisters, aged thirty, has a tumor on the lower end of the femur.

8. Dr. Bathedat, in a letter addressed to the editor of L'Union Medicale, points out what he supposes to be the cause of frequent failures attending the treatment of erectile tumors by vaccinations. The drop of blood that follows the prick of an ordinary lancet, carries away the vaccine lymph, and very few or no pustules are obtained. To remedy this he uses a needle instead of a lancet. The punctures can be multiplied *ad infinitum*, so that a veritable vaccine crust is formed over all the diseased surface, whatever may be its extent. Tumors, he adds, the dimensions of which would not even have allowed a trial of cure with the ordinary lancet, may be treated by this method with a fair chance of success.

9. Gustav Simon has succeeded in demonstrating that a stream of water forced into the rectum by means of a syringe, may be made to penetrate the entire length of the large intestine, and possibly extend also into the small intestine. His experiments were performed upon two separate patients, each of whom happened to have a fistulous opening in the ascending colon, near its junction with the cæcum.

10. Professor Billroth has performed the operation of removing the larynx and epiglottis. The patient was a strong man about forty years of age, the subject of cancerous growths in the larynx, which had repeatedly, after putting him in danger of death from suffocation, been removed by Dr. Storck, with the aid of the laryngoscope. Prof. Billroth's operation was performed on the last day of 1873. In the beginning of November, the new growths extended so far into the interior of the larynx, that their removal from above was no longer possible. As a part of the right vocal cord was present, Drs. Storck and Billroth hoped to preserve this, however imperfect; they therefore opened the larynx from the front, and, after removing the growths, applied solution of perchloride of iron to the inner surface. The result of this operation appeared at first to be very promising, but in the middle of December new growths were detected, and at the end of the month

symptoms of asphyxia. Drs. Billroth and Storck decided that the whole larynx was so full of malignant growths that it would be useless to repeat the operation of dividing it and cleaning them out, and there was no longer a possibility of preserving any part of the vocal cord. Extirpation of the part would produce no additional physiological defect, and might lead to a radical cure if the disease was confined to the part, and had not reached the glands. Professor Billroth therefore removed the entire larynx. The patient bore the operation very well; he breathed freely through the trachea, in which a tube was inserted; the fever was slight, and of short duration; and on January 9th the wound was healing favorably. On the 24th the man was reported to be able to eat and drink, and to sit up for several hours daily.

ARTICLE II.—*Progress of Syphilology.* By JAMES NEVINS HYDE, M.D., Lecturer on Dermatology and Syphilis, Rush Medical College, Chicago.

1. *On Syphilitic Membranoid Occlusion of the Rima Glottidis.* LOUIS ELSBERG, M.D. (American Journal of Syphil. and Dermatol.)

2. *Syphilitic Ulcerations of the Cervix Uteri.* Appendix to a translation into French of Churchill's Diseases of Women. A. LE BLOND. (Le Progres Medical, Oct. 11, 1873.)

3. *On the Treatment of Syphilis.* Prof. ZEISSL. (Wien. Med. Wochenschr.)

4. *On the Treatment of Syphilis.* A. LANCEREAUX. (La France Medic., Nov., 1873.)

5. *The Oleates of Mercury.* JOHN MARSHALL. (Medical Record, Jan. 15, 1874.)

6. *On the Question of the Transmission of Syphilitic Contagion in the Rite of Circumcision.* R. W. TAYLOR, M.D. (Reprinted from the N. Y. Medical Journal, Dec., 1873.)

1. Syphilitic membranoid occlusion of the rima glottidis requires, for its accurate determination, the use of the laryngoscope. Prof. Elsberg reports six cases treated by himself, three by Turck, one by M. Mackenzie of London, and one by Navratil of Pesth. About two and one-quarter per cent. of cases of laryngeal syphilis, are said to be complicated by occlusion.

Occurring, necessarily, in only comparatively late stages of the disease, it may be considered as a result and termination of the syphilitic process; and might be classed with tertiary syphilitic affections, were it not coincident with ulceration of the mucous surfaces, rather than of the deeper structures. In two of the eleven cases, the cartilaginous free portion of the epiglottis was reduced to a stump;* in two, its upper edge was eaten away; while in six, the cartilage was unimpaired. In no case were other cartilages involved; in two, however, the nose had fallen in.

As to the interval existing between the date of infection and the formation of the web, no satisfactory evidence was supplied by these cases. In one individual, hoarseness had existed prior to the constitutional disorder; but in none of the others was there room for suspicion of any other agent in the production of the laryngeal disease. The ages of these patients ranged from sixteen to forty-eight years; nine, however, were between twenty and thirty-three years old at the time of treatment. Nine were males, and two females, "a disproportion which we might jocularly ascribe to the proverbial constant use of the vocal bands in the latter."

The webs generally were formed of cicatricial tissue, resulting from syphilitic ulceration, and always began at the anterior angle, the greater or smaller orifice left for breathing space having been usually at the posterior extremity of the rima. In two cases, the membrane occluded the whole rima; in one, it was attached both anteriorly and posteriorly with a central orifice; in the other, it was unattached posteriorly. In still another, the membrane was adherent both in front and at the inter-arytenoid fold, but the main portion of the left vocal band was unattached, so that along its free edge there was a narrow breathing chink.

Non-membranoid laryngeal occlusion, is situated generally above the rima glottidis, and results from infiltration or swelling of the ary-epiglottic folds, laryngeal walls or ventricular spaces; cica-

* A patient with complete destruction of the epiglottis, from syphilitic ulceration, was recently exhibited to the Chicago Society of Physicians and Surgeons, by Dr. Owens, of this city. No stump, no relic of the fibro-cartilage remained. The hoarseness almost amounted to aphonia. The vocal band on one side was free, but covered by a reddened and injected membrane—that of the other, appeared to have been in part destroyed. Deglutition was almost unimpaired in a semi-recumbent position; and in no other. The case illustrated in a remarkable manner the adaptability of the neighboring organs.

tricial deformity, destruction or displacement; and neoplasms. Non-syphilitic occlusion of the rima by a membrane, may be congenital or traumatic. (Suicidal throat-cutting and surgical thyrotomy.) The nature of the obstruction, if syphilitic, is most readily determined, when there are characteristic ulcers in the neighborhood, or in the pharynx, nasal passages and skin; and when other morbid processes can be excluded.

The course of the formation of the membrane is more or less chronic, and the dyspnœa with hoarseness or aphonia, is developed so slowly that an adaptation of the organs occurs, and the symptom last described may become aggravated to a fearful degree, before becoming fatal; as in the first of these cases. Any partial occlusion is, however, highly dangerous, since it is liable to complication with superadded œdema.

General and local treatment is requisite—the former, including hygienic measures, should consist of tonics, suppletories, medicaments directed to the skin, bowels and kidneys, and iodides, if mercurialization has occurred; otherwise, the two great antisyphilitic remedies should be combined, or the mercurial administered, in accordance with Lewin's method, by the skin. For local treatment, we must be ready in every case of extreme dyspnœa, to perform tracheotomy; "*this may be needed before we can attempt to remove the web.*"

The membrane is to be removed by galvano-cautery and through the mouth. Mackenzie split the larynx open from without, in order to divide the web, and it partially re-formed. Turck operated locally in only one case, and split the web with the laryngeal knife, introduced through the mouth. Its anterior portion subsequently reunited. Navratil performed a similar operation, with like results.

Prof. Elsberg's first and second cases were not operated upon. In the third, an attempt at treatment by the galvano-cautery, failed for want of proper apparatus; the membrane was partially divided anteriorly, but subsequently reunited.

In the remaining cases, the web was successfully removed by the galvano-cautery. The instruments employed were Voltolini's (Middeldorpf's) carbon-zinc battery of two elements; his dull, knife-shaped, galvano-cautero, made in Breslau; as well as Schnitzler's, made in Vienna; and Von Brun's, made in Tubingen. The

rods were surrounded with silk thread, and dipped into cold water before introduction, to prevent the conduction of heat toward their handles.

Usually a number of galvano-cauteric applications were needed, and repeated from time to time. In the fourth case, the web was entirely removed at one sitting. Little after treatment was found to be requisite beside, vocal gymnastics, the inhalation of astringent or soothing sprays, and dilatation by bougies, till the danger of reproduction of the membrane had passed.

2. Upon the cervix uteri the soft variety of chancre is oftenest found. Indurations, of rare occurrence, have however been established in cases of pescidentia. Adherent ulcers, with grayish floors, irregular borders and clean-cut edges, surrounded by a somewhat inflamed areola, are, in this location, as a rule succeeded by general infection. They may become multiple, coalescent or phagedenic. Diphtheritic and ulcerative forms are described; the latter invading the adjacent submucous tissues, and occasioning, in many cases, great loss of substance. These lesions are not generally found upon the cervical apex, as are simple ulcers, but at the point of union of the cervix and vagina. Those which are located in the cervical canal, require dilatation of the os tincæ, prior to discovery and treatment. After a variable period, their characteristic features are lost, and chancres may thus come to resemble simple ulcers, mucous condylomata, or vegetations resting upon a somewhat indurated base; the latter needing to be distinguished from cancerous degenerations. The history of such cases furnishes a clue to the diagnosis. When the surface of a simple ulcer becomes inoculated with a specific virus, it changes and becomes grayish, soft and fungous; the distinguishing features of the resulting chancre being simultaneously modified.

Mucous patches, located upon the os and cervix, are elevated and pearly-white.[b] Their contagiousness is now generally admitted. After persistence for a longer or shorter interval, they return to the type of a simple ulcer.

3. Professor Zeissl considers that "the preparations of iodine, judiciously administered, with an appropriate regimen, are able to cause the disappearance of the first manifestations of syphilis, or,

at least, to so modify the disease, that it yields to a small number of mercurial inunctions, without subsequent relapses, that is, so that the syphilis may be regarded as definitely cured."* The early syphilides, however, yielded more rapidly to a mercurial course; the later, disappearing quickly under the use of iodine. Mucous syphilides succumbed much earlier to the iodine treatment. The tincture of iodine is preferable to the iodide of potassium, not only because of its cheapness, but also on account of its inaptness for the production of the phenomena known in "iodism." Half a fluid drachm is added to six fluid ounces of water, and a tablespoonful given twice daily.

Syphilis is found to be rebellious in pregnant women infected at the time of conception, little disposed to be amenable to treatment until after confinement, and then requiring such treatment for a subsequent period.

Prof. Zeissl uses iodoform locally in indolent ulcers, and exhibits it internally in two and three grain doses, for syphilitic neuralgia—the remedy being administered in pilular form, with a bitter extract. In the event of gangrene resulting from syphilitic adenopathy, he employs the continuous water bath.

4. Lancereaux employs mercury in primary syphilis, only when there is protracted induration of the primary lesions, with well-marked adenopathy, nor does he advise cauterization; this is useless if not dangerous. When there are prodromata of an explosion of syphilis, (intense cephalalgia, great lassitude, wandering pains and moral depression)† mercury is still withheld, and,

* In an article which appeared in the July number of the *Chicago Medical Journal* for 1872, ("On Syphilitic Lesions of the Viscera,") I stated that "if it were not foreign to the subject-matter of these pages, I should proceed to show that, contrary to the advice of many syphilographers, this treatment (that by iodine compounds) can be applied to cases of primary and secondary syphilis with singular success"; and that it will "most surely and speedily procure a relief from symptoms; when the mercurial is indispensable in order to make that relief permanent." These opinions, fortified by the authority of the distinguished advocate of the doctrines of the dualistic school, cannot fail to receive the attention which they deserve.

† I have now under my care a patient who exhibited these prodromic symptoms in a marked degree, when literally on the eve of an eruption of papulo-squamous syphilides. The precedent sore had been long and extensively irritated and indurated by the caustic applications of an attending physician. Las-

especially in chloro-anæmic cases, chalybeates substituted; laxatives, if indicated by apepsia.

When the exanthemata appear, mercury is exhibited, and discontinued immediately upon their disappearance. The objections of M. Diday to such a course, in case of roseolar and papular syphilides, are not held to be valid. The administration of the metal by the mouth is preferred to the method by inunction, or Lewin's method by hypodermic injection. Where there are febrile complications, and occasionally at the outset of the disease, iodine is employed.

In tertiary syphilis, Lancereaux uses the iodide of potassium; in cases where there is visceral complication, small doses of calomel; in others, where there is room for suspicion of some lesion of the hæmatopoiœtic glands, nitric acid and mercurial inunction. Foul tertiary ulcers are dressed with glycerine, alcohol, iodine, copper, mercury, iron, iodoform, hydro-chloral and meta-chloral, (Duj. Beaumetz) and nitric acid. Arthropathy, osteocopic pain, periostites and exostoses, require vesication; the blisters being dressed with emollient cataplasms or stimulating ointments, as circumstances may indicate.

5. The oleates are clean, economical and superior to other mercurial ointments in power of penetration and diffusibility. They are absorbed by the skin with remarkable facility, and display their remedial effects with great promptitude. They are not to be rubbed in, but applied with finger or brush, lightly, in order to preclude the possibility of unnecessary irritation. In the event, however, of such an occurrence, olive oil or purified lard may be added. One grain of morphia is advantageously combined with each drachm of the oleate of mercury; the pure alkaloid is, however, to be used, since the salts of the hydro-chlorate, the acetate and the meconate are insoluble in oleic acid. From ten to thirty drops may be applied morning and night for four or five days; then at night only for an equal period, and subsequently on alternate days until a cure is effected. Salivation and constitutional irritation are not produced. Persistent and chronic inflammations,

situde had existed for several days to such an extent that he reclined constantly upon a lounge—night-sweats debilitated him when asleep—gloomy forebodings added to the distress occasioned by rheumatoid pains in almost every joint. On the appearance of the eruption, these phenomena at once disappeared.

with lesions of adjacent integument, are particularly benefited by such a course.

"The oleate is to be prepared with the oxyd, precipitated by caustic potash or soda, from a solution of the metal in nitric acid, recently made and well dried. The solution of mercury by oleic acid is assisted by a temperature of three hundred degrees Fahrenheit." The five per cent. solution is a perfectly clear, pale yellow liquid, resembling, but thinner than, olive oil; the ten per cent. solution is also fluid and perfectly clear, but as dark as linseed oil; while the twenty per cent. solution is an opaque, yellowish, unctuous substance, closely resembling in appearance resin ointment. It melts very readily at the temperature of the body, and forms a kind of transparent, viscid varnish, when applied to the skin. Excessive haste and too great an elevation of temperature may reduce the metal in course of its preparation.

In cutaneous diseases the five per cent. solution without morphia is recommended, especially in tinea sycosis. In congenital syphilis a piece of the twenty per cent. solution as large as a pea or bean may be applied to the axilla night and morning for five or six days, and will produce constitutional effects without the annoyance of uncleanliness. As a topical remedy for the non-ulcerating syphilides of the head, face and neck, the ten per cent. solution is valuable as an accessory to other treatment.

6. Dr. Taylor's monograph is the result of an investigation conducted by himself at the request of the Board of Health of the city of New York, that body having had its attention directed to four cases in which it was suspected that syphilis had been communicated in the performance of circumcision.

In the first child, he discovered unmistakable lesions of syphilis upon the genital organs, and well marked, but small, papular syphilides over the trunk, arms and thighs. In the second child, the circumstances of the development of the initial lesion left room for doubt as to whether the contagion occurred in the religious rite, but did not preclude such a possibility. In the other three cases, the facts elicited, as well as analogical evidence, pointed to a local rather than to a systemic condition as the origin of the lesions of the genitals.

These children had all been circumcised by one Hebrew operator, whom Dr. Taylor had the opportunity of examining.

This man suffered from a copious eruption of tinea versicolor upon the upper portion of his trunk, and displayed a few acne-papules upon the back, but had no syphilitic history, nor had he any evidences of syphilitic disease.

Dr. Taylor concludes that (*a*) there is a possibility of the occurrence of syphilis in the Jewish rite of circumcision; (*b*) that the contagion is most likely to be communicated in the act of sucking the wound, the mouth containing a styptic liquid, or by the use of instruments soiled by syphilitic blood; (*c*) that the chances of such contagion are rendered greater by the employment of irresponsible, non-professional operators; (*d*) that the operation of sucking should be wholly abolished, and styptic solutions, if employed, should be poured upon the wound, and not squirted by the mouth; (*e*) that successive operations should not be performed without thorough and careful cleansing of all instruments; and (*f*) that physicians, or officiating rabbis, should alone be empowered to perform a rite, which, he justly adds, "has useful sanitary bearings."

The facts elicited in this investigation, induced the writer to inquire concerning the method observed by the Hebrews of Chicago, in the observation of this rite, and he was put into communication with a Jewish operator, who has for thirteen years enjoyed the almost exclusive privilege of circumcising the infants of his nationality, in this vicinity, and in several adjoining States. Strange as it may appear, his services have been in such demand that this occupation has engrossed his entire time.

It is reasonable to suppose that, with the precautions observed by him, no contagion can occur during the performance of the rite, and, in justice to him it should be added that, according to his statement, none such have occurred. The operation is very rapidly performed after drawing the prepuce through a narrow slit in a silver shield, and the styptic solution employed—alum water—is poured over the wound and never ejected from the mouth. He admits that on several occasions he has sucked the blood from the parts after the operation, when assured that there was no taint of the system, but professes to have abandoned the practice in later years. The apparatus employed is kept scrupulously clean.

Editors' Book Table.

NOTE.—All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.

Physicians' Pocket Case-Record, and Prescription Blank Book. Cincinnati Case-Record Company. 1874.

Is a form for the writing and registration of prescriptions, and the recording of clinical memoranda. The Office Case-Record, etc., being a quarto edition of the same, both arranged somewhat after the manner of a check book, the leaf being of sufficient length to contain the prescription and a duplicate or abstract thereof upon the stub, after the prescription shall have been torn off; on the reverse side of the stub is a blank for recording the patient's name, address, diagnosis, age, build, pulse, tongue, urine, stools, heat, etc. All this is very useful, but involves an amount of clerical labor which few physicians are willing to perform. It will doubtless find its admirers who will use it, for awhile, and when the novelty wears off will abandon it.

One feature of the system we must condemn; it is copyrighted. We contend that every member of the medical profession is bound in honor to contribute everything in his power to the advancement of his profession, and has no right to trade upon the necessities of his professional brethren for his own exclusive benefit. We have no intention to impugn the motives of the author of this work, who has doubtless acted in good faith according to his view of the matter. Fancy Laennec patenting his stethoscope, or Hodge his forceps! If we have anything to offer to our profession which may accrue to its advantage, let us give it freely, and trust to our reward in our participation in the general advancement. H.

Clinical Researches in Electro-Surgery. By A. D. ROCKWELL, A.M., M.D., and GEO. M. BEARD, A.M., M.D. New York: William Wood & Company. 1873.

A really valuable contribution to the resources of clinical surgery; being an apparently honest report of experiments for the removal, by both the electrolytic and galvano-caustic methods, of erectile and vascular, cystic and fibrous, epithelial and scirrhus growths, showing the actual and relative advantages of the two methods. The results of these experiments have been highly satisfactory to the authors, and seem to have demonstrated to them the exemption of these methods from some of the objections usually urged against them, among which may be mentioned pain, which seems by no means a necessary accompaniment of the application of these methods of treatment.

The second chapter comprises the results of experiments made for the relief of various forms of skin disease, in which both local and central galvanization has been applied. The results in this department of clinical research have been quite as satisfactory as in the last one, and, moreover, seem to rest upon more certain physiological data. Eczema, prurigo, acne, pityriasis, psoriasis, and even elephantiasis, have been made the subjects of experiments, and in all cases the results have justified the belief that, to say the least, a very valuable addition has been made to the armamentum chirurgicum in the galvanic battery, and a very important contributon to our knowledge of its application by thi treatise of Drs. Rockwell and Beard, which will amply compensate any one who may desire information upon these subjects, for the money and time spent in its purchase and perusal. H.

Lectures on the Clinical Uses of Electricity. Delivered in the University College Hospital. By J. RUSSELL REYNOLDS, M.D., F.R.S., Fellow of the Royal College of Physicians, etc., etc. Second edition. Philadelphia: Lindsay & Blakiston. 1874.

The study of, and the general interest awakened in, the therapeutic relations of the various forms of electricity, seem destined to initiate a new era in the history of practical medicine.

Anything emanating from the pen of J. Russell Reynolds, to whom the students of medicine are already so much indebted, is entitled to thoughtful study, and the little volume before us is not an exception to this general commendation. The lectures, five in number, with an appendix, have already been published in the London *Lancet.*

The author is one of the very few who can speak with authority, and yet not dogmatically. This is well illustrated in the first division, in which the diagnostic and the therapeutical capacities of electricity are analyzed and limited; and in the second, in which the various forms of this force are defined and their applicability explained. The tyro in electro-therapeutics will find this little book one of the clearest, most explicit and intelligible guides to a correct understanding of the real value of this most important agent; and the adept will derive that pleasure from its perusal which an expert always finds in the work of a master hand. H.

The Student's Guide to Surgical Anatomy. Being a description of the most important surgical regions of the human body, and intended as an introduction to operative surgery. By EDWARD BELLAMY, F.R.C.S., Associate of King's College, London, etc. With illustrations. Philadelphia: Henry C. Lea. 1874.

The author, in his preface, comments very justly upon the paucity, in English medical literature, of works similar to his own, and assumes with equal justice that his little book will serve to supply

a need which all students must have appreciated. He has done his work well, for it is rare to find so much practical knowledge condensed into the small compass of six chapters. The plan of the work is simple, the style concise, and the matter practically important. The illustrations, about fifty in number, are for the most part taken from reliable sources, about one-third being original. Taken altogether, this is one of the most useful little books accessible to English-speaking students, and there are few whose studies of surgical anatomy will not be materially facilitated by it. H.

The Physician's Dose and Symptom Book; containing the doses and uses of all the principal articles of the Materia Medica, and officinal preparations, etc., etc. By JOSEPH H. WYTHES, A.M., M.D., etc. Eleventh edition, revised. Philadelphia: Lindsay & Blakiston. 1874.

What we have said on a preceding page of another little book, whose author's name bears a striking resemblance to that of the compiler of the little work before us, will apply with equal force to this.

We have no fault to find with the good intentions of the author, which he says, in his preface, were "to save trouble," and that his intentions have been abundantly appreciated by large numbers of physicians willing to "save trouble," is demonstrated by the fact that ten editions of the work have been already exhausted. We cannot avoid expressing the belief that the general use of such books tends to encourage superficiality, already the greatest defect in medical education, and to lower the standard of professional attainment, already far too low. The excuse for the publication of these "ready reckoners," and short cuts to knowledge, time-honored since the days of Neill & Smith's Compendium and Mendenhall's Vade Mecum, both long since, happily, consigned to oblivion, *i. e.*, to save trouble of reference by the busy practitioner, is a fallacy, as the busy practitioner carries, or should carry, the contents of such a book in his own memory, compiled from the records of his daily experience. In fact, they are not found in such hands, but in those of medical students trying to supplement the idleness and negligence which marked their "first course" by "cramming" for examination; or in after life, "posting up" in an emergency.

The matter of the book is scarcely up to the times. *Ex. gr.:* to an inquirer anxious to "post up" on bromide of potassium, the information, "Use as iodide of potassium, but slower in effect," will be of questionable value. The dose of tincture of aconite (leaves or root?) prescribed, *i. e.*, "10 to 40 drops, gradually increased," would not only speedily cure a case of "neuralgia or rheumatism," but effectually prevent its return, in the same patient

and probably in the physician. The practitioner who prescribes $\frac{1}{16}$ to $\frac{1}{8}$ gr. of strychnia, as here directed, should study well the phenomena of tetanus, to guard against surprises. Nor do we think that the alterative effects of prot-iodid of mercury will be best demonstrated by doses of ij. grs.

Lectures on Bright's Disease, with especial reference to Pathology Diagnosis and Treatment. By GEO. JOHNSON, M.D., F.R.S., Fellow of the Royal College of Physicians; Honorary Fellow of King's College, London; Professor of Medicine in King's College, and Physician to King's College Hospital. New York: G. P. Putnam's Sons. 1874.

Twenty-eight years have elapsed since the publication of his papers in the Medico-Chirurgical Transactions identified the name of George Johnson with the study of renal pathology, and his Gulstonian Lectures in 1852, and the publication of his treatise on Diseases of the Kidney, in the same year, marked him as one of the greater teachers in this department of medicine, and enrolled his name with those of Bright, Garrod, Golding, Bird, Bence, Jones, Todd, and Rayer. This last contribution to the literature of renal disease in no way detracts from the author's high reputation. The work before us consists of seven lectures, arranged in as many chapters, of which the first comprises the minute anatomy and physiology of the kidney and the general pathology of Bright's disease, the latter of which the author formulates into five propositions, viz.:

I. Bright's disease is not merely a local malady, but a disease of constitutional origin; and the proximate cause of the renal disease is, in all probability, a morbid condition of the blood. * * *

II. The morbid blood, which is assumed to be the proximate cause of Bright's disease in all its forms, exerts its influence primarily upon the gland-cells which line the convoluted tubes. * * *

III. The structural changes which occur in the basement-membrane and in the malpighian capsules are direct results of intra-tubular cell-changes.

IV. During the progress of chronic Bright's disease, the blood-vessels in the kidney and in many tissues and organs undergo very interesting changes, but these occur later and less constantly than those which affect the secreting tissues of the gland.

V. The pathological products of the structural changes within the tubes, being carried out by the liquid secretion, escape with the urine and appear in the form of cylindrical casts of the uriniferous tubes; and a microscopical examination of these tube-casts affords most interesting and valuable information as to the nature and the stage of the renal disease.

The second chapter treats of acute Bright's disease under its

various synonyms, acute desquamative nephritis, acute albuminuria, and acute renal dropsy; the form of this disease frequently occurring as one of the sequelæ of scarlet fever being assumed as the type; acute Bright's disease, however, may occur without desquamation, without albuminuria, and permits, generally, a favorable prognosis.

The third, fourth and fifth chapters constitute a complete treatise upon chronic Bright's disease under its different forms, marked by the small, contracted and granular, and the large white or fatty, and the lardaceous or waxy kidney, together with the organic complications arising in its course.

In this, the chronic, form of the disease, the author gives us little to hope for in the way of favorable prognosis, regarding every variety of it as essentially fatal.

The sixth lecture, upon the subject of albuminuria unassociated with Bright's disease, possesses much interest, inasmuch as the difficulties perceived by some in distinguishing these morbid phenomena may therein be entirely cleared away. The section relating to puerperal albuminuria will be found especially clear and concise.

The treatment of both forms of the disease is detailed in the seventh and last chapter, and is an admirable illustration of physiological therapeutics, quite refreshing in this age of empiricism.

BOOKS RECEIVED.

The Marine Hospital Service of the United States from 1798 *to* 1871; being the Annual Report of the Supervising Surgeon for the fiscal year 1873. By JNO. M. WOODWORTH, M.D.

Treatment of Nervous and Rheumatic Affections by Static Electricity. By Dr. A. ARTHIUS. Translated from the French by I. H. Etheridge, M.D., Professor of General Therapeutics, Rush Medical College, Chicago. W. B. Keen, Cooke & Co. 1874.

Remarks on the Management of Intermaxillary Bone in Double Hair Lip. By W. R. WHITEHEAD, M.D., of Denver, Colorado. Denver, 1873.

PAMPHLETS RECEIVED.

Report of the Autopsy of the Siamese Twins, together with other interesting information concerning their life, reprinted from the *Philadelphia Medical Times*. Philadelphia: J. B. Lippincott & Co. 1874.

Epidemic Diseases as dependent upon Meteorological Influences. By C. SPINZIG, M.D. St. Louis, Mo., 1874.

Report of the Vaccine Department of the New York Dispensary for the year 1873. By Dr. FRANK P. FOSTER, Director of the Vaccine Department. New York, 1874.

Twenty-fifth Annual Report of the Indiana Hospital for the Insane, for the year ending October 31, 1873, to the Governor. Indianapolis, 1874.

Contributions to the Study of Yellow Fever. By J. M. TONER, M.D., and JNO. M. WOODWORTH, M.D. Washington, 1874.

Constitution and By-Laws of the Association of the Alumni of the Albany Medical College. Albany, 1874.

Constitution and By-Laws of the Medical Society of Central Missouri. Jefferson City, Mo., 1874.

Cerebro-Spinal Meningitis in Massachusetts in 1873, with some Inquiry into the Circumstances Attending its Origin and Supposed Cause. By J. BAXTER UPHAM, M.D. Boston, 1874.

Writers' Cramp or Scriveners' Palsy. By REUBEN A. VANCE, M.D., New York.

Skin Grafting. By J. R. LEWIS, M.D., Surgeon to the Pennsylvania Hospital, and to Will's Ophthalmic Hospital.

JOURNALS RECEIVED.

L'Anatomie et de la Physiologie, Journal de. CHARLES ROBIN. Paris.—No. 1, Janvier et Fevrier; No. 2, Mars et Avril, 1874.
Archives of Ophthalmology and Otology. Knapp & Roos. New York and Heidelberg. Vol. III, No. 2.
American Practitioner, Louisville, Ky.—April, 1874.
American Journal of Syphilography and Dermatology—April, 1874.
Atlanta Medical and Surgical Journal—April.
The Boston Medical and Surgical Journal—April, 1874.
" British Journal of Dental Science—Feb. and March, 1874.
" Buffalo Medical and Surgical Journal—Feb., March and April.
" Boston Journal of Chemistry—April.
" Canada Medical and Surgical Journal—March and April.
" Clinic, Cincinnati—March 21, 28, April 4, 11.
" Cincinnati Lancet and Observer—April.
" Dental Cosmos—April, 1874.
" Eclectic Medical Journal, Cincinnati—April, 1874.
" Indiana Journal of Medicine—March and April, 1874.
" Kansas City Medical Journal—March and April, 1874.
" London Lancet—March, 1874.
" Medical Examiner, Chicago—March 15, April 1.
" Medical and Surgical Reporter, Philadelphia—March 21, 28, April 4.
" Medical Times, Philadelphia—March 21, 28, April 4.
" Medical Times and Gazette, London—March 7, 1874.
" Missouri Clinical Record, Vol. 1, No. 1, St. Louis, Mo.—April, 1874.
" Medical Record, New York—April, 1874.
" Medical Press and Circular, London—March 18, 1874.
" Medical News and Library—April, 1874.
" Medical Herald, Leavenworth, Kansas—April, 1874.
" Medical Union—New York, April, 1874.
" New York Medical Journal—April, 1874.
" North-Western Medical and Surgical Journal—April, 1874.
" Nashville Journal of Medicine and Surgery, March, 1874.
" Ohio Medical and Surgical Reporter—January and March.
" Pacific Medical and Surgical Journal, San Francisco—March and April.
" Physician and Pharmacist, New York—March, 1874.
" Progres Medicale, Nos. 6, 7, 8, 9, 10, Paris, 1874.
" Pharmacist, Chicago—April, 1874.
" Practitioner, London—March, 1874.
" Richmond and Louisville Medical Journal—March and April, 1874.
" St. Louis Medical and Surgical Journal—April, 1874.
" Southern Medical Record, Atlanta—March, 1874.

Editorial.

"Oh wad some power the giftie gie us, to see oursels as ithers see us." So sang auld Scotia's bard, and we have often mentally re-echoed the prayer, which has most unexpectedly been answered by our "Country Correspondent" in his "Review of the CHICAGO MEDICAL JOURNAL, April No." Long familiarity with the style of our "Correspondent" has convinced us of his entire exemption from the vice of flattery, and therefore we accept his commendations and condemnations with all due humility, hoping at some future day to merit the one and to escape the other entirely. Being human, we do not claim perfection, only aspiring thereto. May its partial attainment, with a little assistance from our "Correspondent," be not unattainable! H.

American Medical Association.

PHILADELPHIA, 1400 PINE STREET, S. W. CORNER BROAD.

The Twenty-fifth Annual Session will be held in the city of Detroit, Mich., on Tuesday, June 2nd, 1874, at 11 A. M.

"The Chairmen of the several sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections. * * * *"—BY-LAWS, Art II, Sec. 4.

SECTIONS.

Practice of Medicine, Materia Medica and Physiology.—Dr. N. S. Davis, Chicago, Illinois, Chairman. Dr. Geo. E. Frothingham, Ann Arbor, Mich., Secretary.

Obstetrics and Diseases of Women and Children.—Dr. Theophilus Parvin, Indianapolis, Ind., Chairman. Dr. Montrose A. Pallen, St. Louis, Mo., Secretary.

Surgery and Anatomy.—Dr. Samuel D. Gross, Philadelphia, Pa., Chairman. Dr. Alonzo Garcelon, Lewiston, Me., Secretary.

Medical Jurisprudence, Chemistry and Psychology.—Dr. A. N. Talley, Columbia, S. C., Chairman. Dr. E. Lloyd Howard, Baltimore, Md., Secretary.

State Medicine and Public Hygiene.—Dr. A. Nelson Bell, Brooklyn, N. Y., Chairman. Dr. A. B. Stuart, Winona, Secretary.

☞ "Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his section, to determine the time and order of their presentation, and give due notice of the same. * * * *"—BY-LAWS, Art. II, Sec. 5.

The following Committees are expected to report:

On Cultivation of the Cinchona Tree.—Dr. L. J. Deal, Pennsylvania, Chairman.

On the Treatment of Fractures.—Dr. Lewis A. Sayre, New York, Chairman.

On Gynæcology.—Dr. M. A. Pallen, Missouri, Chairman.

On some Diseases Peculiar to Colorado.—Dr. John Elsner, Colorado, Chairman.

On Rank of Medical Corps of the Army.—Dr. J. M. Keller, Kentucky, Chairman.

On Prize Essays.—Dr. G. K. Johnson, Michigan, Chairman.

On the Progress of Otology.—Dr. D. B. St. John Roosa, New York, Chairman.

On American as compared with Foreign Winter Cures.—Dr. H. R. Storer, Massachusetts, Chairman.

On Railroad Injuries.—Dr. W. F. Peck, Iowa, Chairman.

On the Therapeutics of Ammonia.—Dr. P. J. Farnsworth, Iowa, Chairman.

On the Relation of Physiology to the Practice of Medicine.—Dr. E. W. Gray, Chairman.

On Puerperal Fever.—Dr. W. O. Smith, Kentucky, Chairman.

On the Legal Relations of Moral Insanity.—Dr. E. Lloyd Howard, Maryland, Chairman.

The following amendments to the Plan of Organization are to be acted upon:

By Dr. N. S. Davis, Illinois—

Strike out the second paragraph of Art. II, and insert the following:

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the Medical Department of the Army and Navy of the United States."

Also, strike out the fourth paragraph of same Article, and insert:

"Each State, County and District Medical Society, entitled to representation, shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number.

"The Medical Staffs of the Army and Navy shall be entitled to four delegates each."

By Dr. P. Pineo, of Massachusetts—

Art. II, second paragraph, after "Army and Navy," insert "and the Marine Hospital Service of the United States."

By-Laws, Sec. 6, after "the chiefs of the bureaus of the Army and Navy," insert "and the supervising surgeon of the United States Marine Hospital Service."

By Dr. E. L. Howard, Maryland—

Art. IV. Strike out second clause of first paragraph, and insert:

"They shall be nominated by the Judicial Council, and shall be elected by vote on a general ticket."

By Dr. A. S. Maxwell, of Iowa—

"*Resolved*, That in view of the many and important duties imposed upon the Nominating Committee, the Medical Society of each State and Territory that elects delegates, be requested, when selecting delegates, to nominate one member of such delegation as their member of the nominating committee, and also designate the mode of filling vacancies."

By Dr. A. M. Pollock, of Pennsylvania—

Art. VI., first paragraph, strike out the word "five" and insert "ten."

By-Laws, Art. 5, first paragraph, strike out "five" and insert "ten."

☞ Secretaries of all medical organizations that have adopted the Code of Ethics, are respectfully requested to forward to the undersigned a complete list of their officers, with their post office addresses, and the number of their members in good standing. This is the only guide for the Committee of Arrangements in determining as to the reception of delegates.

It will also enable the Permanent Secretary to present a correct report of the Medical organizations in fellowship with the Association.

WM. B. ATKINSON, M.D., Permanent Secretary.

Rush Medical College—Names of Graduates, 1873-4.

NOTE.—The subjoined List of Graduates should have been published in the March No. of the JOURNAL, but the manuscript having been lost, it was unavoidably omitted until a correct copy could be obtained. The Editors trust that this accident will be deemed a sufficient apology to the Class for the apparent neglect.

William Andrew Allen.
Sanford Fillmore Bennett.
Victor Arthur Bertram.
Charles LeRoy Burroughs.
John Henry Byrne.
Oscar Nathan Carr.
Theodore Jefferson Catlin.
George Henry Chapman.
Frank Wilbur Chase.
Ira Broadwell Connett.
James Wells Cook.
James Edwin Cowan.
Henry Crowder.
Frederich Wilhelm Denke.
Robert Ford Dundass.
Leonidas Hamlin Eaton.
David William Edgar.
Andrew Judson Ervey.
William Henry Franks.
William Harrison French.
Ira Hamilton Gillum.
Ezra T. Goble.
Zenas Harmon Going.
George Washington Greaves.
William Samuel Grimes.
John Edgar Hathorn.
Truman Augustus Herrington.
Wilbur Alson Hendryx.
Gershom Hyde Hill.
Lewis Cass Hormell.
John Wesley Lane.
Abraham Leigh.
William Russel Lewis.
Robert A. Livingston.
Frank Howard Lord.
Henry Smith Lytle.
Herbert Marcus McKenzie.
Robert Edward McClelland.
Addison Webster McCoy.
James Harold McCune.
James Gallagher McElroy.
Oliver Harrison Martin.
Samuel Warren Mercer.
George Henry Miller.
Frank Lawrence Miles.
Theophilus Wells Mitchell.
Ellis Crosby Moore.
William Harrison Morgan.
Lea Murphy.
Ralph Parkin.
George Weston Parsons.
William Parsons.
Frank Howard Payne.
Weston Theodore Plumb.
Kossuth Fillmore Purdy.
Frank Allen Reed.
Addison Winfield Rickey.
Laurel Elmer Robison.
William Rose.
Franklin LaFayette Rownd.
Joseph Augustus Scroggs.
Edgar Barber Shumway.
Archie Robertson Small.
Arthur Henry Steen.
Daniel Morrison Benonia Thom.
Edson Reuben Wait.
Lewis Franklin Walker.
Spencer Cone Wernham.
James Delaforet Whitley.
Constantine Wiley.
Thomas Royston Wiley.
Arthur Lee Wright.
William Henry Youngham.

Honorary Degree.—Dr. Rogers, Bloomington. Dr. Willcox, Dr. Theodore J. Bluthardt, } Chicago.

Directory for the Month.

Every Monday. Lectures.—At Rush College, 9 to 1 o'clock.—Drs. Wadsworth, Bridge, Jackson and Parkes. At the Chicago College, 8 to 12 o'clock. Drs. Quine, Curtis and Roler. At Woman's Hospital College, 9 to 11 o'clock. Drs. Dyas and Fitch.

Clinics.—At Mercy Hospital, 3 P. M. Surgery.—Dr. Andrews. At the Central Dispensary (239 W. Van Buren street), 3 P. M. Medical.—Dr. Bridge. At the Eye and Ear Infirmary, 2 P. M.—Dr. Holmes. At Hospital for Women and Children, 1.30 P. M. Gynæcological.—Dr. Thompson.

Mondays, May 4th and 18th.—Meeting of *Chicago Medical Society*, in the evening, at Gault House.

Mondays, May 11th and 25th.—Meeting *Chicago Association of Physicians and Surgeons*, in the evening, at Grand Pacific Hotel.

Every Tuesday. Lectures.—At Rush College, 9 to 1 o'clock.—Drs. Owens, Bridge, Adolphus and Parkes. At 4 P. M.—Dr. I. N. Danforth. At Chicago College, 8 to 12 o'clock.—Drs. Bond, Earle, Hutchinson and F. H. Davis. At Woman's Hospital College, 8 to 10 A. M.—Drs. McDonald and Bartlett.

Clinics.—At County Hospital, 2 P. M. Surgical.—Dr. Bogue. Medical.—Dr. Bevan. At Mercy Hospital, 3 P. M. Gynæcological.—Dr. Roler.

Tuesday, 19th inst.—Illinois State Medical Society. (Place announced by daily prints.)

Tuesday, 12th inst.—7.30 P. M., at 263 Wabash avenue, *Chicago Academy of Sciences.*

Every Wednesday. Lectures. At Rush College, 9 to 1 o'clock.—Drs. Wadsworth, E. F. Ingals, Strong and Parkes. At Chicago College, 8 to 12 o'clock.—Drs. Stilliaus, Sherman, Nelson and Merriman. At Woman's Hospital College, 9 to 11 A. M.—Drs. Thompson and Fisher.

Clinics.—At County Hospital, 2 P. M. Gynæcological.—Dr. Quine. 3 P. M. Ophthalmological.—Dr. Hotz. At Mercy Hospital, 3 P. M. Ophthalmological.—Dr. S. J. Jones. At St. Luke's Hospital, 8 A. M. Surgical.—Dr. Owens. At Central Dispensary, 3 P. M.—Dr. Bridge.

Every Thursday. Lectures.—At Rush College, 9 to 1 o'clock.—Drs. Hyde, Bridge, Jackson and Case. At Chicago College, 8 to 12 o'clock.—Drs. Quine, Earle, Hutchinson and Haines. At Woman's Hospital College, 3 to 6 P. M. Drs. Paoli, Blake and Delafontaine.

Clinics.—At Mercy Hospital, 3 P. M. Medical.—Dr. Merriman. At Central Dispensary, 2 P. M. Gynæcological.—Dr. Adolphus. Diseases of Chest. Dr. E. F. Ingals. At Hospital for Women and Children, 1.30 P. M. Medical.—Dr. A. H. Foster.

Every Friday. Lectures. At Rush College, 9 to 1 o'clock.—Drs. Wadsworth, Hayes, Adolphus and Case. At 4 P. M.—Dr. Danforth.

Clinics.—At County Hospital, 2 P. M. Medical.—Dr. Bevan. Surgical.—Dr. Bogue. At Mercy Hospital, 3 P. M. Medical.—Dr. Nelson.

Every Saturday. Lectures.—At Rush College, 9 to 12 o'clock.—Drs Owens, Hay and Strong. At Chicago College, 8 to 12 o'clock.—Drs. Bond, Jewell and Haines. At Woman's Hospital College, 10 to 12 o'clock.—Drs. Curtis and McDonald.

Clinics.—At Rush College, 2 P. M. Surgery.—Dr. Gunn. 3 P. M. Diseases of Nervous System.—Dr. Hay.

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXXI.—JUNE, 1874.—NO. 6.

Original Communications.

ARTICLE I.—*Two Cases in which the Pneumatic Aspirator was Employed Successfully.* By E. W. LEE, M.D., Chicago.

CASE 1. G. M., aged 74 years, called upon me early on the morning of February 5th, complaining of inability to urinate. A few questions elicited evidences of chronic prostatic enlargement, which was confirmed by a digital examination, the gland being of great size, indurated, but quite insensitive, pressure being freely borne without pain.

I at once attempted to empty the bladder by catheterism, but after repeated efforts with various sizes of instruments, was reluctantly obliged to desist. I then resorted to hip baths, injections per rectum of warm water, with opium, etc., internally. A second and repeated attempts to introduce the catheter at intervals until the afternoon of the 6th, were invariably unsuccessful. Up to this time the kidneys were not secreting actively, hence there was no painful distention; but slight symptoms of coma ensuing, it became imper-

ative to at once empty the bladder and promote free action of the kidneys. As I could not introduce the catheter, and puncturing the viscus through the rectum was contra-indicated by age and general condition, I determined to use my pneumatic aspirator, which was done with the most gratifying results. A medium sized needle of the aspirator being introduced immediately above the pubis, allowed the escape of thirty ounces of turbid and bloody urine. The operation was repeated twice on the 7th, thirty-five and forty-two ounces respectively being discharged, more nearly normal in quality. On the morning of the 8th I succeeded in carrying a No. 8 catheter into the bladder with comparative facility, and on the 9th the patient passed the instrument himself. There was not the slightest untoward symptom from the punctures of the bladder, and the man made a good recovery.

CASE 2. I was called, on the evening of the 22d of March, to see T. K., male, aged 30 years. He informed me that he had suffered for years from hernia, and that hitherto he could readily reduce it, but was now unable to do so. On examination I found a large scrotal hernia, strangulated. The man was in great pain, vomiting freely; skin cold and clammy; pulse fifty beats per minute, and weak; anxious expression of countenance.

I injected half a grain morph. sulph. hypodermically, with marked benefit, the pulse getting firmer and the skin warm and dry, pain also being removed to a great extent. I now had the patient anæsthetized, and having applied taxis until I became satisfied that it could not succeed, I introduced the finest needle of the aspirator, and drew off seven ounces of rather thick, bloody serum. Withdrawing the instrument I introduced one of larger calibre, which had the effect of liberating a quantity of air. These procedures reduced the volume of the tumor considerably, when, to my great satisfaction, with very little effort, the intestine was returned to the cavity to which it belonged. There was some tympanitis and tenderness of the abdomen for a couple of days, but the man made a good recovery.

ARTICLE II.—*A Case of Strangulated Umbilical Hernia, with Loss of Portion of Intestine.* By J. N. REEDER, M.D., Lacon, Ill.

On the 14th of February, 1871, I was called to see Mrs. Norman Fenn, of this city, aged about 68 years. I found her bathed in a cold, clammy perspiration, her pulse very feeble and frequent, her stomach excessively irritable, constantly retching, though her ejections were little else than the fluids she drank, and were of a distinctly stercoraceous odor; in short, her general appearance, expression of countenance, etc., were indicative of fast approaching collapse. She complained of no acute pain, but an indescribable distress—a sense of sinking, as she described it. Her stomach not being in a condition to retain medicine, I prepared and gave, hypodermically, three grs. sulph. quinine and one-fourth gr. sulph. morphine. My object in giving quinine in this case was for its antiseptic property, feeling that her great depression was owing in a large degree to a septic condition of the blood. In fifteen minutes the injection was repeated, with the effect of bringing up the pulse, causing general warmth of the surface, relieving her distress—in short, of establishing very perfect reaction.

Upon examination I found an immense "umbilical hernia," as large as a child's head, and as tympanitic as a blown bladder, the integuments covering the tumor being highly inflamed, of a dark livid color, and on the verge of giving way from excessive distention. In answer to my inquiry, why assistance had not been called sooner, I was told that she had been for thirty years incumbered with the hernia; that she had had frequent attacks similar to this; that she had always before been able to relieve herself by fomentations, and such means as she had at hand, and that she did not realize the danger she was in at such times. I learned farther that the strangulation had occurred three days since, and that nothing had been done for her relief except what the family had been able to do, though she had suffered the agonies of death. Of course my only alternative was an artificial anus for present relief. Being fully satisfied that there existed adhesions between the abdominal wall and the protruding loop of intestine, sufficiently strong to prevent the escape of fæcal matter, or the receding of the gangrenous intestine into the peritoneal cavity (the hernia having been irreducible for many years), I made an opening through the integuments

and tissues beneath, exposing the intestine, which gave way from distention as soon as the support of the integuments was removed, giving exit to the gaseous and feculent contents of the loop. I then enlarged the incision in the integuments, exposing fully the interior of the tumor, which I found, as I expected, in a gangrenous condition, a well defined line of demarcation appearing at the point of exit, or opening in the abdomen. I proceeded carefully to separate the gangrenous mass at this line, and removed the whole contents of the sack, introducing into the two openings at the bottom, tents of soft sponge prepared in carbolized cocoa butter, applying a compress and bandage around the body. Every distressing symptom disappeared immediately on the escape of the pent-up contents of the included loop, and, under the use of quinine and morphine, she rapidly improved, and the integumentary covering of the hernia sloughed away, leaving an ugly looking ulcer of five inches in diameter, which healed down to the openings in the abdomen by granulation. Upon examining the mass removed I found that I had taken away fourteen inches of the transverse colon, with a large portion of omentum. During the healing the two openings were kept corked with sponge tents prepared as above, the upper one to prevent the constant escape of fæces, and the lower for the purpose of keeping it freely open, with the view of facilitating the operation I had in contemplation for the closure of the disgusting artificial anus, which I successfully accomplished some two months after the removal of the loop.

The first step in the operation was to remove the spur-like process between the upper and lower openings, which I attempted to do by passing a needle and ligature from one orifice to the other, but owing to the thickness of the abdominal walls and the fear that I might include within the stitch some portion of small intestine or other vital structure, I abandoned the plan, and adopted the long jawed forceps. Having no suitable instrument, I set myself to work to get one up for the occasion. Cutting the finger loops from a strong polypus forceps, having the arms brought together for jaws, and having a small rod with thumb screw upon it passed through holes drilled through the points of the short jaws, I had an instrument which answered my purpose perfectly. Passing one arm of my clamp into each of the open mouths their full length (four inches), I turned the screw till some pain was complained of.

Every day a few turns of the screw were added, till the tenth day it was found to have cut its way through, and was removed. Very little pain or tenderness was complained of from first to last. I had now a perfect cut-off, and was ready for the closure, which I attempted to accomplish by inserting, after having pared the margins of the orifice, common silk sutures—but failed, as I expected. My second attempt was successful. After thoroughly cleansing the bowel by injections of warm water, I carefully freshened the opening again, from the integumentary margin down to the peritoneal cavity. Arming a large curved needle with silver wire, I inserted it through the integuments fully an inch from the margin of the opening. Introducing one finger of my left hand as a guide to the point of the needle, I passed it down to the inner edge, and out on the opposite side at a corresponding distance from the margin. Three of these wires were passed through in the same manner, and were brought through small porcelain buttons for the purpose of relieving the strain of the wire upon the integuments, and then drawn sufficiently tight by twisting, to bring the bottom of the orifice into perfect apposition; the outer edge was drawn together by common adhesive plasters, warm water compresses and a bandage around the body, as in the first attempt; the patient was kept on her back and opium given freely to secure rest and keep the bowels quiet. No solid food was allowed. Considerable inflammation followed this procedure, but by adding tr. arnica to the fomentations, it soon subsided. After about a week the wires were removed, and union found to have taken place except a small point not larger than a broom straw, through which a little gas would occasionally escape, but nothing more. This little fistula closed of its own accord in the course of a few weeks. For ten days after the closure no discharge was had through the bowels, though no inconvenience was felt in consequence. Injections of warm water were given per anum for the purpose of dilating the long idle rectum and descending colon, and to stimulate the bowels to natural action, which was soon effected. Their action, however, was feeble for some weeks, but by the occasional aid of injections they began to act freely and naturally. It is now over two years since the closure. She has suffered no pain nor inconvenience in that region, is in perfect health, does her own housework, and in fact is in better health than she had been for many years before the accident.

I have been careful to give the case in detail as it occurred, and was treated, not stopping to discuss the propriety or impropriety of the steps taken or the means used in its management, leaving others to do that.

ARTICLE III.—*A Case of Habitual Regurgitation, Simulating Rumination in the Lower Animals.* Reported to the Chicago Medical Society, meeting of January 19th, 1874. By D. W. GRAHAM, M.D.

Mr. D—, aged 24, an intelligent mechanic of robust appearance, medium height, sanguine temperament, with muscular system exceedingly well developed; has been strictly temperate in all his habits. Appetite and digestion have always been good, but never relished fatty articles of food; intestinal functions perfectly normal; has always had good health. Family history good, except some manifestations of tuberculosis on the maternal side. A suspicion of the development of this affection in himself, induced by a transient attack of bronchitis, led him to apply for an examination. A thorough physical examination gave no evidence of any organic disease of the lungs or heart.

In this connection he mentioned that he was in the habit of regurgitating and remasticating his food, and wished to know the cause of it, and if there was any way of being relieved of the difficulty. He introduced the subject with apparent reluctance, and on condition of privacy, seeming to fear that there might be sufficient grounds for classifying him with the ruminant order of animals.

He says the process commenced when he was about ten years old, when he was in perfect health, and without any assignable cause. The regurgitation takes place regularly after every meal, commencing about fifteen minutes after finishing the meal. The returning bolus is remasticated and again swallowed. It does not, however, return to the mouth in a distinctly moulded form, as in those animals whose organs are adapted to the special and normal function of rumination, but is rather a loose, discrete mass. The act is repeated in the same way, the frequency and the length of time it continues depending on the quantity, kind and condition

of food taken. When a light meal is taken, consisting largely of liquids, there may be but one or two regurgitations following. When a meal consists to any extent of meats and the coarser vegetables, containing considerable of the fibrous elements, as might be inferred, the acts of regurgitation are more frequent, and continue longer, until sometimes from three to three and a half hours intervene between the meal and the last act of regurgitation. Although he thinks he chews his food as well and with as much care as other people, yet, when he gives particular attention to it, and masticates thoroughly, it notably diminishes the number and frequency of the acts of regurgitation.

When asked how far the process was voluntary, he replied that he could control it to some extent by keeping his mind directed to it; but when it is repressed, it causes an uncomfortable and peculiar feeling of heaviness, somewhat resembling slight nausea. There is concerned in each act the element of a slight contraction of the muscles of the abdominal cavity, which is to some extent voluntary, but almost unconsciously so.

The taste of the regurgitated food is not modified during the first part of the process, but towards the latter part it acquires a disagreeable, acid taste. But to use his own words, chewing the regurgitated food before it has acquired this disagreeable taste, "is the sweetest part of the meal."

It causes him no inconvenience or disturbance of any kind, except some embarrassment during the process in the presence of others, and the (to him) disagreeable reflection that it is abnormal and not human.

These are the principal facts in the case, as I learned them from his own statements and from personal observation, and I would respectfully submit them to the Society, soliciting discussion on the questions that must naturally arise as to the nature and cause of the difficulty, and means of relief.

ARTICLE IV.—*A Complete Closure of Hymen.* By G. C. PAOLI, M.D.

On the 10th of February Dr. S. called at my residence, and requested me to go with him to see a girl fifteen years of age, who he said was suffering intense pains from a tumor of the uterus. As the doctor had no idea of the character of the tumor, he applied leeches to subdue the inflammation.

On my arrival I found the patient was in agony from excruciating pains in the back and abdomen. Her face was in cold, clammy perspiration; her hands were cold; pulse 120, and weak; abdomen somewhat distended, and tender to the touch. By digital examination I found that when my finger reached the inside of the vulva it came upon a very tense, elastic swelling. By ocular examination I found that said tumor protruded like a sack, and at its centre it was so thin and shining that I could perceive it contained a dark fluid. Satisfied that the case was a complete closure of hymen, I ruptured it at once with my finger, and about three quarts of menstrual fluid were evacuated, and the girl is doing well.

But as simple and plain as this case seems to us, there are still many cases on record which have proved fatal after the perforation of the membrane for the relief of menstrual retention. Blood has been sometimes effused into the peritoneal cavity. In other cases death has occurred from peritonitis and pyemia.

Progress in Medical Sciences.

ARTICLE I.—*Report on Pathology and Microscopy.* By I. N. DANFORTH, M.D., Lecturer on Pathology and Microscopy, Rush Medical College.

1. Spindle-Celled Sarcoma. Dr. B. JOY JEFFRIES. Prof. LANKFORD.

2. Bright's Disease, with Leucocythæmia and Disease of Bone Marrow. By Dr. H. C. WOOD, Philadelphia Hospital.

3. A Singular Case of Gout. (*Medical Record*, Jan. 1.)

4. The Origin and Action of Miasm. (*New Orleans Medical and Surgical Journal*, Jan., 1874.

5. Bacteria in the Blood. Dr. EBERTH. (*St. Louis Med. and Surg. Jour.*, March, 1874.)

6. Ascites from Obstruction in the Portal Vein. Sir W. JENNER. (*Practitioner*, London, Feb., 1874.)

7. Embolism of the Arteries of the Extremities. Dr. SAMUEL B. WARD. (*New York Med. Jour.*, March, 1874.)

8. Embolism of Pulmonary Artery. Dr. LENTR. (*The Medical and Surgical Reporter*, March 14, 1874.)

1. Dr. B. Joy Jeffries, of Boston, describes an intra-ocular spindle-celled sarcoma, removed by himself on the 1st of April last, in the following language:

"The substance of the tumor was firm, homogeneous, whitish, and no pigment was seen. It was attached to the sclerotic, about the size of a small filbert, reaching forward to the insertion of the iris, and backward beyond the median line. It touched the back of the lens, pressing forward the ciliary muscles and processes. The sclerotic lying against it was perfect. It occupied the place of the choroid, pushing the retina inward on its surface. The rest of the globe and optic nerve seemed perfectly normal. The microscope showed it to be a fusiformed-cell white sarcoma, such as Knapp gives in Tab. XII, Figs. 50–53, in his monograph on intra-ocular tumors." (Trans. Am. Ophth. Soc., 1873.)

Prof. Lankford, of the Missouri Medical College, amputated the thigh of a man aged seventy-four recently, on account of a spindle-cell sarcoma. "Microscopic examination of various portions of the growth" (on the outer aspect of the middle of the left leg) showed spindle cells arranged "in bundles that interlaced each other in every direction; a layer of enlarged capillary blood vessels covered the surface of the growth, from which blood seemed to have been abundantly effused into the surrounding tissues, part being there decomposed, besides what escaped in the hemorrhages, thus giving rise to the black color," which was noticed in the growth. "Regarding that class of tumors called sarcomata, it has been observed that they tend to reappear after operation in the cicatrix or its neighborhood, rather than to spring up continuously in the same spot as do cancers proper; also, that they do not involve the lymphatic glands as certainly and promptly as cancers do. Spindle-celled sarcomata are found especially often in muscles,

fasciæ and cutis. They are locally very infectious."—(*St. Louis Medical and Surgical Journal* for Jan. 1874.)

2. In the Philadelphia Hospital (service of Dr. H. C. Wood), a case of "Bright's Disease," with leucocythæmia and disease of the bone marrow occurred, with the following interesting post mortem history: "Spleen slightly enlarged; no lymphoid points visible in it; weight, nine and one-half ounces. Pancreas abnormally hard; weight, four and one-half ounces. Glands of axillæ and inguinal region somewhat hypertrophied, but scarcely larger than filberts; lymphatic structure elsewhere apparently not affected. Kidneys very small, offering on microscopical examination the usual lesions of contracted kidney. The tibia, when sawn open, offering apparently healthy marrow, approximating lemon-yellow, and normal in appearance. The marrow of the femora dark red, presenting the general appearances seen in cases of leucocythæmia elsewhere." Reported by Dr. H. C. Wood. The marrow of the femora, on microscopic examination, "showed an enormous increase of the so-called lymphoid elements, which have been described by Neumann as intermediate forms between the white and red blood-corpuscles. These lymphoid elements are quite small in size. Large cells with a distinct cell-wall were also seen, containing from eight to twenty blood-corpuscles. The fully formed red disks, although quite numerous, were less abundant than the intermediate lymphoid forms."—(*Medical Times*, Jan. 3, 1874.)

The point of interest in connection with this case is the absence of marked enlargement of the spleen or lymphatic glands; while both spleen and lymphatic glands were slightly above the natural size, the enlargement was quite insufficient to account for the leucocythæmia.

3. The following description of a case of gout is taken from the *Medical Record* of Jan. 1: "The case was interesting in the fact that it illustrated a wonderful development of the disease in a boy aged twenty, without any real cause, unless it was an hereditary tendency. His fingers had the appearance of a bunch of carrots; nearly all the joints of the body contained gouty deposits, and the helix of his ears was filled with tophi."

4. Mr. Bat. Smith, medical student, discusses the "Origin and Action of Miasm" in the *New Orleans Medical and Surgical Journal*

for Jan., 1874, and after rejecting the germ or parasite theory, says: "In view of the unsatisfactory results of the investigations of this parasite theory, at least as far as malaria is concerned, I am led to believe with Schwalbe, that the true cause of miasmatic diseases should be ascribed to some peculiar chemical substance of a gaseous nature, rather than to a low living organism." Basing his conclusions upon the results of numerous investigations made by himself in the malarial districts of Central America, he pronounces miasm to be a gas generated by the decomposition of certain vegetable substances. The sun's rays, and the molecular interchange in the vegetable matter, from large quantities of oxygen, destroy or neutralize this gas, either wholly or in part. After sunset the gas attains a sufficient degree of concentration to act detrimentally upon the human system. The action of the poison is most intense during the night. It is suspended near the surface of the earth.

5. Dr. Eberth, of Zurich, states: "That he has found in ordinary sweat, small, oval-shaped bacteria, which are frequently united in strings of two or three, and endowed with rather active movements. In spots covered with hair they attach to the hair, and often form thick layers, whilst others penetrate into the hair, which then splits and breaks. Coloring by hæmatoxylon brings out the isolated bacteria, as well as those collected in the hair."

6. "Sir W. Jenner gives the details of the case of a man whose abdomen gave way at the umbilicus with a loud report, in a clinical lecture, delivered at the University College Hospital. In this case the gas was in the peritoneal cavity, and he had previously been tapped. The wound did not heal, and when the gas rapidly accumulated the weak spot ruptured. The real causes of the man's troubles were an impediment to the flow of blood through the portal vein, and an impediment to the escape of bile from the hepatic duct. * * * The patient had had hæmatemesis, and suffered from perforation of the bowel, which led to peritonitis."

7. Dr. Samuel B. Ward relates two cases of arterial embolism occurring in the extremities, which are worth summarizing:

Case 1. An Irishman, aged thirty-two, married, plasterer by trade; has never had rheumatism, syphilis, or any serious (acute)

illness, except intermittent fever about fifteen years ago, and diphtheria eight years ago. August 6, 1873, after "drinking freely," the patient was taken with gastric distention, followed by endocarditis. August 11, embolism of the "right popliteal artery by a clot or vegetation from the valves of the heart," suddenly made its appearance, as attested by the fact that the limb became "white as marble, and apparently as bloodless; and the surface, from a hand's breadth above the knee to the extremity of the toes, perfectly cold. Pulsation could be felt in both tibials of the left limb; on the right side no pulsation could be felt below the opening in the adductor magnus for the passage of the femoral." On the 13th the symptoms were much improved, and, says Dr. Ward, "there is every appearance that collateral circulation is being established." On the 14th, "condition of limb slightly worse; no pulsation can be felt in the femoral below the middle of the thigh." On the 15th, "no pulsation can be felt in the femoral, even at the groin," and it was evident that a clot filled the artery above Poupart's ligament. The signs of gangrene appeared promptly. On the 22d trismus manifested itself, and on the 23d the patient died.

No post-mortem allowed.

Case 2. "Mrs. M., American, aged 31, married, having always enjoyed fair health, went through her first and second pregnancies and confinements without any unusual occurrence. Has never had any heart disease. Twenty-four hours after her second labor, which occurred January 10, 1865, she had a severe chill, and two or three hours later was suddenly seized with intense pain in the right leg, which soon amounted to perfect agony. On examination the foot and leg were found to be very pale up to a line about three inches below the knee, and through the same extent coldness, with a very great diminution, if not total absence, of sensation, was noticed." * * * "There was a single purplish streak from the knee down the outer side of the leg on to the foot." Gangrene promptly made its appearance, and "the integument sloughed off, until the muscles, tendons, ligaments and bone were all exposed" from the knee to the foot, with the exception of the tissues corresponding to the "purplish streak" already mentioned. One month after the accident, the slough had separated, and granulations appeared; at the end of three months she was able to leave her bed; at the end of five months began to go out of doors, and at

present a large scar is to be seen, and a granulating, rather smaller than a silver dollar, which has never healed.

8. Dr. Lente, of Cold Spring, N. Y., reports a case of embolism of the pulmonary artery, with the following history: "In Jan. 1, 1874, a woman was thrown out of a sleigh, and received a fracture of the tibia, which penetrated the knee joint, and at the same time received a severe injury in the chest from the seat of the sleigh." Three weeks after the injury the doctor "was sent for urgently, but, in his absence, his assistant visited the patient. She was found blanched, pulseless, and complaining of nausea, and headache, and pains in different parts of the body. The patient was attacked about one o'clock, and died about seven."

"Autopsy thirty hours after death. The lungs were found engorged with blood, with the exception of a small place anteriorly. The pulmonary artery on the right side was completely plugged up by an embolus. On the left side the artery was nearly in the same condition, but it allowed a small amount of blood to pass. From this obstruction no blood found its way into the left side of the heart, and, in this way, all the symptoms of internal hæmorrhage were produced. There was no appreciable dyspnœa. There was no injury of the sternum, and no lesion of the heart to account for the embolus."

ARTICLE II.—*Progress of Obstetrics and Gynæcology.* By A. REEVES JACKSON, M.D., Lecturer on Gynæcology, Rush Medical College, Chicago.

1. Is Ovulation the Sole Cause of Menstruation? By C. C. MATTESON, M.D. (*Amer. Supplement to Obstetrical Jour. of Great Britain and Ireland*, April, 1874.)

2. On the Necessity for Caution in the Employment of Intra-Uterine Stems. By Dr. EDIS. (*London Lancet*, April, 1874.)

3. On the Prevention of Uterine Inflammation. By Dr. EDWARD J. TILT. (*Half-Yearly Abstract of the Medical Sciences*, Jan. 1874. *British Med. Journal.*)

1. The question treated by Dr. Matteson involves the correctness of what is known as the ovulation theory of menstruation. Since the enunciation of this theory by Dr. John Power, in 1821,

physiologists have, one by one, given it their adherence, and so generally is it now approved, that it has come to be regarded as heterodox to dispute its truth. Occasional attacks, it is true, have been made upon it, but they have thus far been unsuccessful.

Certainly it is not a hopeful task to attempt anything like a refutation of the correctness of the matured opinions of such men as Raciborski, Pouchet, Bischoff, Baer, Barry, Robert Lee, Tyler Smith, Chas. D. Meigs, Cazeaux and Leishman, all of whom are mentioned by Dr. Matteson as fully endorsing the ovular theory; and yet one author does make the attempt, not by elaborate argument, but simply by the presentation of certain stubborn facts.

One of the strong arguments made use of by the adherents of the ovulation theory is the asserted fact that the removal of both ovaries from a woman causes an invariable and immediate cessation of menstruation. The aim of Dr. Matteson is to show that menstruation has taken place in women who have undergone the operation alluded to, "and therefore that ovulation cannot be the *sole* cause of that phenomenon."

In order to sustain this position, he has industriously collected the notes of ten cases in which, after double ovariotomy, the patients had continued, with more or less regularity, to have a sanguineous discharge, attended by the ordinary symptoms of the menstrual flow, recurring in some instances for a few months, and in others for many years.

Dr. Matteson does not think that the influence of "habit," to which the discharge was attributed in the first reported cases of the kind mentioned, is rationally applicable to those in which it has continued to occur regularly through nine and ten years, however deserving of consideration it might be in those incomplete ones where the flux appeared but once or twice. He adds, "What then remains? Can we fail to admit, with our present knowledge, that menstruation does take place when the ovaries are wanting?"

2. The paper of Dr. Edis was read recently at a meeting of the Obstetrical Society of London. Its object was to forcibly impress the necessity of caution in the use of intra-uterine stems, on the part of those who regarded this mode of treatment as necessary. He detailed several cases illustrating the dangers which may arise from the use of the instrument. In order to lessen

these dangers, he advised preparatory treatment and the supervision of patients wearing intra-uterine stems.

The paper is certainly a most timely one. When, a few years ago, the late Prof. Simpson introduced to the profession his so-called galvanic intra-uterine stem pessary, with all the enthusiasm that belonged to his nature, the instrument became at once largely employed both in Great Britain and on the Continent of Europe. But so indiscriminately were the cases selected—or rather, there was such an entire lack of selection—that many accidents, some of them of a fatal character, soon resulted from this mode of treatment. The consequence was that it was discarded as suddenly as it had come into use. Nevertheless, it had in so many cases been productive of benefit, that gynæcologists again began to regard it with favor, and with increased care in its employment, the instrument has come to be once more looked upon as a legitimate and useful therapeutic means. Indeed, there is evidently a rapidly growing tendency to resort to it for the relief of all cases of flexion productive of morbid symptoms, for dysmenorrhœa dependent upon this or other obstructive cause, and for cases of defective uterine development. However, the cases recorded by Dr. Edis and other observers, show that still greater care must be taken, or a valuable remedial agent may again fall into disrepute.

During the discussion which followed the reading of Dr. Edis' paper, Dr. Savage remarked on the capriciousness of uterine tolerance, and thought that we had yet to acquire the art of bringing the uterus to a condition which would insure immunity from danger when subjected to treatment.

For ourselves, we think that intra-uterine stems of any kind, whether of metal or of vulcanite, rigid or flexible, should never be used: 1. During the continuance of active congestion or inflammation of the womb or its mucous lining; 2. If there be perimetric inflammation or its results, as adhesion or deposits; 3. No force whatever should be used in their introduction; 4. The patient should be seen daily for the first week, and subsequently at intervals of three or four days. If these precautions be duly observed, this mode of treatment, which in our opinion is the most scientific, most useful, and, all things considered, the *best* for certain abnormal conditions of the uterus, may be used with at least as much safety as attends the use of most surgical means.

3. In this paper the author calls attention to the fact that the most frequent causes of uterine inflammation are to be found in the conditions attending parturition and abortion; and his own experience leads him to believe that metritis, in some form, is an almost inevitable sequel of a tedious labor or a bad miscarriage, although in some instances years may elapse before the disease is recognized. It is well known to obstetricians that most cases of tedious and instrumental labor are attended by contusion and laceration of the cervix. These lacerations, if not very extensive, ordinarily heal readily provided the woman be healthy; but if the injuries be extensive, or the woman be in feeble health, they may give rise to very intractable forms of uterine inflammation.

A still more frequent cause of inflammation and other diseased conditions of the womb, is the defective involution of the organ. Both physician and patient regard parturition as a natural function. This is of course correct, but an exaggerated belief in its consequent safety has too frequently the effect of leading them to neglect the timely use of means for ascertaining accurately the existence and extent of organic lesions that retard recovery after labor or abortion. One of the results of this erroneous practice is the non-recognition of subinvolution until it has become chronic and more difficult to cure. If the damage done to the womb by parturition were rightly appreciated, measures calculated to prevent injurious results following the process would be more frequently employed.

Whenever, after four or five weeks of careful nursing and proper hygienic surroundings, a woman still continues weak, with persistent pains in the back, and red or muco-purulent vaginal discharge, a careful examination should be made, and nature should no longer be blindly trusted. Such examination will frequently reveal the existence of some of those structural lesions which cannot be cured without the aid of surgery.

Abortions are even more likely to be followed by inflammatory disorders than labor at full term. This results from the fact that women usually regard such accidents as of trivial importance, and take little subsequent care of themselves, whereas, in the opinion of the author, a month of convalescence is not too much to exact after a moderately bad miscarriage.

ARTICLE III.—*Progress in Therapeutics.* By J. H. ETHERIDGE, Professor of Therapeutics and Materia Medica, Rush Medical College.

1. On the Specific Treatment of Typhoid Fever, after the Method of Dr. Brand, of Stettin. (*Lyon Medicale*, September, 1873.)

2. Typhoid Fever and Cold Baths. Prof. BEHIER. (*Practitioner*, Feb., 1874.)

3. Injection of Chloral in Tetanus. (*Medical Times and Gazette*, Feb. 28. From *L'Institut*, Feb. 18, 1874.)

4. Chloral and Camphor in Neuralgic Affections, Applied Locally. (*British Med. Journal.*)

5. Chloral in Labor. (*Lancet*, Feb., 1874.)

6. A New Use of Chloral. (*Annale de Chemicha*, 1874.)

7. A New Expedient in Administering Chloroform. (By JACOB HEIBERG, Secretary of the Norwegian Medical Society, Editor of "Norsk Magasin for Loege Videnskab," Christiana, Norway.)

8. Treatment of Diabetes Mellitus with Carbolic Acid. (*Berliner Klin. Woch.*, Dec. 8, 1873.)

9. Ammonia and Potassium Iodide.

1. The good results which the application of cold gives, in the treatment of typhoid fever, do not call for demonstration; but the opinion of physicians upon the favorable influence of this medication does not accord to it an absolute, *specific* value. Still, it is from this very point of view that M. Franz Glenard, interne of the hospitals of Lyons, pens an article, in which he gives us the method of Dr. Brand; one of the few German physicians, let us say parenthetically, who, during the war, interested themselves in the welfare of French soldier prisoners, and have merited, by so doing, an exceptional testimony of national recognition.

* * * * * * * *

The following is what this method consists of. Its simplicity is only equaled by its constant efficacy:

As soon as the disease is known, the patient is put into a bath, the temperature of which is 20° centigrade, where he is put in *up to his neck*. The head is sprinkled with cold water of 6° or 8° (centigrade), affusion being indispensable in cases where there are cerebral phenomena. Affusion lasts for two or three minutes. For

three or four minutes the patient is rubbed, shampooed, in water; then he is allowed to rest. In a few moments he experiences a violent shivering; the respiration is panting, and a cough supervenes; sometimes an involuntary stool takes place. The patient desires most urgently to leave the bath; he should be kept there at least fifteen minutes. Upon coming out he is shivering and purple, and presents "an aspect piteous enough to rend one's heart." His shirt is replaced without drying him, and he is put to bed, with a woolen blanket *over his feet;* the body is covered with a sheet in the summer and a light woolen blanket in winter. The patient is then given some lukewarm soup and a little old wine, and then he is left shivering, which may last from twenty minutes to an hour.

In three hours another bath; and so they are given, day and night, so long as the thermometer, placed in the rectum, does not mark more than 38.5°. After each bath, liquid alimentation, broth, milk and coffee, bread soup, *always tepid;* every quarter of an hour a swallow of ice water.

At the end of twenty-four hours the patient has taken eight baths. He is metamorphosed. The adynamia has disappeared, the cephalalgia is quieted, the tongue is moist. If he cough, the chest is enveloped in large cold compresses, renewed every quarter of an hour. The diarrhœa and the tympanites are likewise treated by means of cold compresses upon the belly. This amelioration is constant and does not cease. "It is not now necessary to reckon by the seven day periods to consider the symptoms, to calculate on the chances of a recovery. He will recover."

One of the inconveniences of this method, its greatest inconvenience (what method has not some?), is the exposing the patient, during the first few days, to a voracious, insatiable appetite, which the physician should guard against gratifying. He must struggle against the unreasonableness of his patient, "drying up his tears by kind words, correcting his faults, keeping a watch over his acts." As to other indications—there are none. As to complications—"there are none." "Cold water, more cold water *always* cold water; not a single medicament."

One hundred and seventy patients treated by Dr. Brand in 1868 gave 170 recoveries. Eighty-nine cases treated in Stettin in 1870–1871 furnished eighty-nine cures. However, the author admits that this leaves five cases of death out of his statistics, the patients

having arrived from the twentieth to the thirtieth day after the accession of the fever. Brand has collocated 1411 cases treated according to his method by *various* physicians. The mortality is 4.7 per 100. Even this small mortality is not admitted by Brand, who avers, either that the patients were taken too late (after the first week) for treatment, or that his method was not rigorously enough used.

The pith of this method is summed up in this aphorism: *Every typhoid fever, treated regularly and from the beginning by cold water, will be free from complications and will be cured*—an aphorism that the physician will always bear in mind, and which "ought to be inscribed in letters of gold over the entrance to the bath room."

M. Franz Glenard denies vigorously that it is from enthusiasm, or that enthusiasm exists at all, in advocating this treatment; and that it well deserves its title, "*Specific Treatment*"—that is to say, a treatment which prevents the development of the disease, and uniformly cures it when it is developed. (Nysten.)

Far be it from us to challenge, in view of a confidence in it, almost impetuous, the incontestable value of treatment by cold water; but we would like to see its valuable effects on a larger scale. To start with, Brand's hypothesis is more than contestable. According to his idea, it is a fermentation wholly analogous to that of the barley germ. "The barley is the blood—the yeast the typh poison. On the one hand, elevation of temperature; on the other, the fever; the alcohol is the typh product." Fermentation lasts three days; typhoid fever three weeks. In lessening the temperature you cut short the fermentation; in cooling the patient you arrest the typh fermentation.

"I am right," adds the author, "in announcing that the advocacy of this treatment would bring to broad daylight the part played by hydrotherapy in typhoid fever, its essence—its right to be."

We must take the good as we find it. It is quite possible—very probable—that the hydrotherapeutic medication employed with this rigor (certain cases have taken more than 200 baths) can triumph over extremely grave cases; but all typhoid fevers do not respond so happily to a medication so difficult to initiate, and especially, to make acceptable to both the patient and family. It seems, according to the author, that up to the present time the physician has been disarmed in the face of a typhoid fever.

"Cold water is the only remedy to use—the only efficacy." Of course typhoid fever has its contingencies—its surprises (aside from the treatment of Brand, naturally)—but in the majority of cases the experienced physician can, toward the end of the seventh day, judge approximately of the gravity of the disease, and he distrusts a little, in spite of himself, the enormous statistics uniting in one immense sum total of facts naturally very dissimilar. The same treatment necessarily benefits the lighter cases, and the errors of diagnosis so frequent in the first eight days. Once more, we should not recoil before the treatment of Brand in a grave case, but it should be repugnant to us to generalize it, and we should the rather desire, in honor of the method, that this singular theory of fermentation and of typh alcohol should be suppressed in the beginning.

2. The February No. of *The Practitioner*, 1874, contains a translation from the *Bulletin de Therapeutique* of a clinical lecture by Professor Behier, delivered in the Hotel Dieu, in January of this year, on the subject of typhoid fever and cold baths.

He agrees with Brand in recognizing the unquestionable usefulness of these baths, but does not agree with him as to the cause of the excessive heat which the bath reduces. Brand regards heat as the result of *fermentation*, and rather arbitrarily—unwarrantably, perhaps—insists on the profession accepting this theory. Behier claims that the excessive heat may arise from three causes, and inclines toward accepting the last of the three. 1st, A diminution of the waste of heat, production remaining the same; 2nd, An increased production of heat, the waste remaining the same; and 3rd, A combination of the two preceding—*i. e.*, "an increase of combustion and a retention of caloric."

He recommends only three baths a day, of a temperature of about 65° F. Diarrhœa, albuminuria, heart disease, pulmonary and cerebral complications, pregnancy and collapse, are *not* contra indications to giving them. Wunderlich stipulates for a little warmer and less prolonged baths in cases complicated with heart disease or pregnancy. Tiemssen puts such patients into a warm bath, "the temperature of which is gradually lowered by adding cold water."

Prof. Behier says further: "We see, then, that if cold water

moderates fevers, it is not perhaps by moderating combustions (for it is proved, on the contrary, that it tends rather to increase them), but by hastening the departure, the waste, of caloric. Its action is thus diametrically opposed to that of alcohol, quinine and other agents which directly attack and moderate the febrile combustion; its role is that of spoliation, not of economy of waste."

3. "M. Bouillard, on the part of M. Ore, a professor of the Bordeaux Medical School, related a case to the Academie des Sciences, February 16, in which chloral had been injected into the veins, as a remedy in traumatic tetanus. A man, after a wound of his finger, became the subject of tetanus, in consequence of which his mouth became so closed that no remedy could be administered. M. Ore therefore threw an injection, containing ten grammes (about 154 grs.) of chloral, into the veins, which produced peaceful sleep; and this was followed by a second and third injection, with the effect of obtaining a sleep of eight hours."

4. Chloral and camphor, equal parts, will yield, after a few hours standing, a clear fluid. This fluid is painted lightly over the painful part, and allowed to dry. It produces no irritation beyond a tingling sensation. It seems to be equally efficacious in neuralgia of any nerve, whether of the fifth pair or sciatic. Mr. Lenox Browne (*British Medical Journal*, March 7, 1874) recommends this combination very highly. He says that in every case it afforded *great*, and in some cases instantaneous, relief. He says he has "found it of the greatest service in neuralgia of the larynx, and in relieving spasmodic cough of a nervous or hysterical character."

5. The efficiency of chloral in *certain cases* of labor is astonishing. Prof. Playfair, of King's College, London, in the Feb. *Lancet*, says: "There is a type of labor very common, especially in women of a highly developed nervous organization, such as constitute a large proportion of our patients, among the higher classes, in which I have found chloral especially valuable. In these, before the rupture of the membranes, and the complete dilatation of the cervix, the pains are very severe, but short and ineffective, chiefly limited to the back, and producing little or no effect in dilating the os. Hours and hours of really intense agony often elapse, until the

patient is wearied and exhausted by her fruitless sufferings. In cases such as these, a common and very useful practice has been to administer a considerable opiate, so as to produce some hours of refreshing sleep, after which we expect the labor to recommence with fresh vigor and effect. The disadvantage of this plan, however, is that during the action of the remedy the labor is suspended, and much time is thus lost. If, however, chloral is administered instead of the opiate, the probabilities are that the same refreshing rest will be obtained without any suspension of the pains or protraction of labor. The character of the uterine contractions will be observed to alter; they will become steady and useful, but they are not suspended."

Rigidity and spasm of the cervix, accompanied by tenderness upon digital examination, can be treated with the most marked success by using this drug.

6. Chloral possesses decided coagulating power on the blood. This property was first observed in 1870 by Prof. Luigi Porta. Since that time he has experimented in various ways with this drug, and has reached the conclusion that we have a new remedy for the radical cure of varix. By means of hypodermic injections he has treated and cured fifteen cases of varix of the leg. "He began by injecting 15 grs., but gradually reduced the quantity to 7, and ultimately to 5 grs., and injected this quantity * * * into numerous points, for the action of the remedy is greatest when it is injected at many separate points. Each of these injections forms a coagulum, and the patient should remain at rest for a few days to prevent slight phlebitis. The coagula undergo absorption, and the veins atrophy, or if they remain potent they cease to be varicose."

All accidents occurring from this use of chloral "have been very trifling." It is to be presumed that this mode of treatment is not limited to varices, but might be applied to other affections of the veins, such as varicocele. Prof. Porta reports one case of cure of this disease by injection. Prof. Coletti remarks: "That for some months in the wards of the Milan Hopsital, varicose ulcers have been successfully treated by the application of a solution of chlora hydrate, containing one part to four of water; recovery took place with great rapidity." (*Annali di Chemicha*, 1874, p. 353.)

7. Dr. Heiberg gives an account, in the *London Medical Times and Gazette*, Jan. 10, 1874, of a method he has resorted to for over two and a half years, for the avoidance of some of the inconveniences attending chloroform administration.

These inconveniences are, "incomplete, rattling respiration, pale, livid color of the face, feeble pulse, etc." The most distressing of these is the oppressed breathing.

His new expedient is "the drawing forward the lower jaw *in toto*." As soon as the rattling, incomplete respiration begins, he accomplishes the matter thus: "Standing, preferably, behind the reclining patient, the operator places both thumbs on the symphysis of the lower jaw, presses the second joint of the bent forefingers behind the posterior margin of the rami ascendentes of the under jaw, and thus holding the whole bone fast between the two hands, draws it forcibly forward (anatomically speaking). The most successful impulse is that which would be given if the intention were to lift the whole head and body by this grasp."

When the expedient is successfully performed—which is especially easy in children—a deep, complete respiration will immediately take place, and will continue as long as the jaw is "luxated" (*sit venia verbo*) forward. The obstacle to respiration is removed, the rattling ceases, and exactly the same result is obtained as if the tongue had been drawn forward, but with none of the inconveniences which would attend the latter. In over 1000 cases in which chloroform was administered, this has been the only expedient used, and it has always answered his purpose.

8. Drs. W. Ebstein and Julius Mueller, of Breslau, have published a few observations, in the *Berliner Klin. Woch.*, Dec. 8, 1873, on carbolic acid, in treating diabetes, which, though too few to base an opinion on, are valuable as being *suggestions*.

According to Dr. Pavy, diabetic sugar arises from fermentation, which turns amyloid substance in the liver into sugar. Carbolic acid arrests fermentation.

Drs. Ebstein and Mueller said: "Now we have it; give carbolic acid, check fermentation, and sugar will disappear." See the results on two patients:

The first was a strong man—or he had been till six weeks previous to seeking relief—aged forty-six years. Passed eight pints

urine daily; specific gravity, 1032; amount of sugar, 2.86 per cent. He had lost thirty-four pounds in six weeks. Sexual power much diminished.

About five grs. crystal carbolic acid in peppermint water were taken daily. At the end of six days of taking this drug the sugar *disappeared* from the urine, and its specific gravity was 1013. His weight gradually increased from 173 to 185 pounds in the course of four months.

In the second patient, the same result followed. The acid was gradually increased till 7½ grs. were given daily.

Details of a third case are given, but the acid failed utterly in causing the sugar to disappear.

Bromide of potassium does not always succeed in epilepsy, yet we almost always try it. If carbolic acid cure or relieve a small percentage of cases of diabetes, we certainly owe much to Drs. Ebstein and Mueller for giving us the details of their cases.

9. Sir James Page first called attention to the fact that carbonate of ammonia greatly increases the therapeutic action of iodide of potassium. Five grains of the iodide of potassium, combined with three of ammonia carbonate, are equal to eight grains of potash salt administered in the ordinary way.

Such a combination is especially good in syphilis.

It is also highly recommended in internal aneurism—for relieving pain and assisting to consolidate the tumor.

Electricity. (The following translation is made from the "Journal de l'Anatomie et de la Physiologie," Nro. 2, 1874. The author is Dr. Onimus. ED.)

"On the Difference of Physiological Action of Induced Currents, According to the Nature of the Metallic Wire Composing the Helix."

We have investigated, from a physical, and especially from a physiological, point of view, the differences which the nature of the wire composing the inducing helices can cause.

We had inducing helices made in absolutely identical conditions: with wires of copper, with wires of lead, and with wires of silver.

The diameter of the wire was the same, and the length of these wires was 210 metres each (about 600 feet).

All the helices were constructed in the same manner, and were influenced in an identical manner by the inducing current.

Upon the nerves and upon the muscles of a healthy man the effects of a shock are different, according to the nature of the metal; and we might say, in a general way, that when the wire of the inducing helix is made of a metal that is a poor conductor of electricity, the contraction is stronger, and the impression upon the cutaneous nerves less lively than with wire which is a good conductor, as copper, for example.

The effects are as much more marked as the external resistance is greater. Thus, in making a current traverse alcoholized water, and in diminishing it to a minimum, so that muscular contractions scarcely occur, with the current from a helix of copper wire, we obtain *more* contractions, with the *same* conditions, with a current proceeding from a helix of silver wire.

Upon the superficial muscles, the difference between the currents from a helix of copper and those from a helix of silver is much less pronounced; it (the difference) shows itself in proportion to the thickness of the skin or the depth of the muscles.

The impression produced by the current on the lead wire, or on silver wire, is less intense; it extends less far upon the superficial nerves of the skin.

Upon the sensitive nerves, situated in the depth of the tissues, the excitation is perhaps more marked than that produced by a current on copper wire, but it is less acute and less lancinating.

We have completed these researches with the assistance of our regretted friend, Dr. C. Legras, in taking upon animals the tracing of muscular contractions produced by currents from the different helices.

The traces thus obtained indicate, in a very marked manner, the more energetic action of the current from the helix of silver.

In using a minimum current, and in experimenting in identical conditions, the curve which is formed by each muscular contraction is much more elevated by the silver helix than by the copper helix.

Further, with the silver helix, the contractions are regular and equal among themselves, and present, also, the double shock due

to the current of the closing, and to that of the opening (of the circuit).

(The lever of the metronome was used as an interrupter. The text here contains five wood cuts illustrative of the various curves representing muscular contractions.—Ed.)

The tracing obtained from the silver helix shows the most irregular contractions, for many of them are faintly pronounced, and it is rare that they have the double shock (shown.) These differences are so much the more marked as one operates farther from the muscle and through the skin.

If the rheophores be thrust into the muscle whose tracing is registered, the difference still exists, but it is much more feeble. In this case, the trace which represents the contraction from the copper helix shows equally well the two shocks. (Figures 6 and 7 are here introduced, showing the different tracings for silver and copper respectively, which tracings differ materially.—Ed.)

In studying these traces, one recognizes, furthermore, that the shock produced from the lead or silver wire has a duration a little longer than that produced by the current from the copper wire.

These experiments prove that the tension in these conditions is stronger from the induced currents of lead or silver wire, and we have, at the same time, to remark that these differences, from a physiological point of view, resemble those which exist between the extra current and the induced current before mentioned.

If the currents from the lead or silver wire have, in these conditions, a tension greater than the current from a copper wire, they have, on the contrary, an inferior quantity, owing to the bad conductivity of these metals. Thus, in experimenting with these same helices, while the current supplied from the copper helix produced upon the galvanometer a deviation of twenty to twenty-five degrees, the current supplied from the lead or silver helix produced upon the same galvanometer a deviation of only one degree to a degree and a half.

If we recur to the tracings given above, we will see that they show in an incontestable manner that the tension has a manifest action upon the energy of the muscular contractions, and that when the excitation is directed upon the nerves and through the skin, the contraction is as much stronger as the tension is greater.

That which proves still more this influence of the tension, is this:

If we increase the length of the copper wire, so that the resistance will be the same from the copper helix as from the silver helix, the physiological effects are the same for the two helices; at least according to the evidence of the contractions, for the cutaneous sensibility is always more lively when excited by the currents furnished by the copper helix.

We easily see from these tracings, that when we operate directly upon the muscles the difference is much less pronounced, for the tension plays a part much less important. It is, verily, in this case, more necessary to have a penetration more or less deep, and the excitation, whatever it may be, suffices to provoke a contraction.

The sensations produced upon the skin also vary according to the nature of the wire, and the facts which we have observed prove, in addition, that this sensation is often independent of the tension, since a current having a stronger tension provokes a less painful impression than another whose tension is weaker but whose quantity is more considerable.

Finally, the rapidity of excitation should also be considered; and one can say, in a general manner, that the impression is vigorous in proportion as the current is of short duration.

All these facts show that the differences of physiological action between induced currents depend wholly upon the physical differences which exist in the production of these currents.

* * * * * * * *

We have to remark, in closing, that, in the electro-magnetic apparati employed in medicine, it would be more advantageous to make use of silver wire rather than copper wire, for silver wire, of the same length, produces currents which penetrate more "deeply the muscles and produce less painful impressions upon the cutaneous surface. The induced currents from copper helices are only preferable in cases where we wish to produce a strong revulsion and a vigorous excitation upon the cutaneous nerves."

Reports of Societies.

Transactions of the "Chicago Society of Physicians and Surgeons." *Meeting, March* 23, 1874. *Reported by* PLYM. S. HAYES, M.D.

The Society met as usual in the parlor of the Grand Pacific Hotel, the President in the chair. The minutes of the preceding meeting were read and approved.

Dr. C. T. Parkes was unanimously elected to membership, and the names of Drs. R. E. Starkweather, W. H. Warn, and E. P. B. Wilder, were presented for membership.

Dr. F. H. Davis read a clinical report of operations on the mouth, describing Dr. I. Manly's mode of preventing hæmorrhage and producing anæsthesia simultaneously.

Dr. Henrotin exhibited an hypertrophied heart, and gave the following details of the case: The patient; a laborer of foreign birth, and previous good health, with the exception of the occurrence of pneumonia about one year prior to his death; of temperate habits; weighing one hundred and seventy pounds, fell down while at work and died in three minutes. He had been able to sleep in any position, had not suffered from dyspnœa and no dropsical effusion existed elsewhere than in the pericardium. He had been engaged in labor for ten hours previous to his death, but had been unemployed for months before this occasion. Upon opening the chest the pericardium was discovered to be enormously distended, and pushed forward into the opening. It contained about fifteen ounces of clear serum, and exhibited no traces of inflammatory action. The heart was found to be enormously enlarged, weighing thirty-two ounces; and its right side was distended with dark fluid blood—the right auricle bulging in the shape of a tumor, and measuring transversely, when opened, ten inches. The aortic semi-lunar valves were rigid and fixed from a cretaceous deposit. There were no cardiac nor vascular clots. The lungs were engorged.

A discussion resulted as to the direct cause of death, in which several participated.

Dr. Bartlett read next the "Annual Report of the Section on

Pathology," separate reports having been prepared by the other members of the section, on the pathology of special disorders. The report embraced all such material as possessed new or interesting features, which had appeared in the Medical periodicals of the preceding year.

The Secretary read a communication from Dr. Wm. E. Quine, of the Committee of Arrangements of the Illinois State Medical Society, requesting information regarding the views of those present on the subject of entertaining the State Association. On motion, it was resolved, that "this Society desires to extend its aid to the Committee of Arrangements, in providing a suitable entertainment for the Illinois State Medical Society, during the approaching convention in next May."

In furtherance of a motion of Dr. Jno. E. Owens, providing that every member of the Society, connected with the staff of a Hospital, be added to the "Committee on Clinical Reports," (adopted March 9, 1874,) a list of names of such members as should be added to the committee, was presented.

The Society then adjourned.

Transactions of the Chicago Society of Physicians and Surgeons.—*Meeting of April* 13, 1874.

The Society met as usual at the Grand Pacific Hotel, the President in the chair. The minutes of the preceding meeting were read and approved. On favorable report of the Censors, Drs. R. E. Starkweather, W. H. Warn and E. P. B. Wilder, were unanimously elected to membership.

Dr. W. A. Harvey was then nominated for membership by Dr. Jackson; Dr. P. Rofe, by Dr. Simons; and Dr. G. H. Chapman, by Dr. Emmons.

The report on Surgical Pathology, prepared by Dr. Montgomery, was deferred in consequence of the number present prepared to report upon the hypodermic use of ergotine in the treatment of uterine fibroids.

Dr. A. Reeves Jackson then made the following Report:

On the Treatment of Fibrous Tumors of the Uterus by Hypodermic Injection of Ergotine; with Cases, from the Woman's Hospital of the State of Illinois.

There can be no longer any reasonable doubt as to the efficacy of ergotine in the treatment of certain abnormal growths of the uterus. The power of the drug to increase the contractions of the organ in parturition has long been known; and its influence in checking or diminishing discharges of blood in the menorrhagia and metrorrhagia after parturition, has also been demonstrated by MM. Ruben and Zente, and others. It was a knowledge of these and similar facts, doubtless, that induced Hildebrandt to employ it for the purpose of controlling the hemorrhages caused by the presence of uterine fibroids.

Hildebrandt's paper, published originally in the *Gazette Hebdomadaire*, November 27, 1872, contained an account of eight cases of fibrous tumor of the womb, treated by the subcutaneous injection of ergotine. The success of the treatment was highly gratifying. From a *resume* published in the *Half-Yearly Abstract of the Medical Sciences*, for January, 1873, we learn that in one case a tumor which had extended beyond the umbilicus had disappeared; in another, a tumor which had reached as far as the false ribs was much diminished in size, so that it descended to below the umbilicus; and in four cases, where the treatment had not been so thorough, there was improvement in both the local and general conditions. Under the use of the remedy, menstruation became less abundant, less irregular, less prolonged, and, especially, less painful.

Having, during the past year, had several opportunities of testing the value of this plan of treatment, I am able to corroborate the conclusions arrived at by Dr. Hildebrandt, and am induced to publish the result for the benefit of those who may be desirous of giving the remedy a trial.

Thus far, I have used the ergotine in five cases for a sufficiently long time to enable me to estimate its effect. Two of these were in hospital, and the remaining three, in private practice. In addition to these, I am also using it in four other cases, but in these the time has been too short to enable me to pronounce an opinion as to the result.

CASE I. *Fibrous Tumor of the Uterus—Excessive Hemorrhage and Pain. Improvement under the use of the Subcutaneous Injection of Ergotine, but no Diminution of the Tumor.*

Was called to see Maria W., the subject of this case, in the early part of June, 1873. She came to the city from her home in Iowa, accompanied by her husband, for the purpose of having a surgical operation performed for the removal of an abdominal tumor, which had been diagnosticated as ovarian.

Her history is as follows: She is thirty-two years old, and has been married twelve years; always had good health until three years ago, when she had a miscarriage at the fourth month, the result of her only pregnancy. Prior to that event there had been nothing unusual as regarded menstruation, which had commenced at the age of fifteen, and had always been regular and in every way normal. The first flow subsequent to the miscarriage had occurred at the end of five weeks, and was so profuse as to alarm her, and she was obliged to go to bed. To use her own words, "it fairly ran" from her. A physician who was called in checked it by using astringent vaginal tampons. At that time she was a large, robust woman, weighing 150 pounds. Her weight is now reduced to less than 100 pounds. Since the time mentioned, she has had a number of similar attacks of hemorrhage, which have greatly prostrated her. They recur so irregularly that she has lost all count of her menstrual periods. She has rarely passed two weeks without having a flow lasting from three to seven days. Within the past year she has had excessive pain accompanying the discharges, so that she has been obliged to use opium, sometimes in frequent and enormous doses. Her appetite has been fair, and her bowels regular. She has been troubled latterly with palpitation of the heart, which is increased by exercise or any quick movement. The urine is passed in large quantity, is clear and colorless, but there is no irritability of the bladder.

A tumor of irregular outline is found occupying the lower part of the abdomen, and is traceable into the pelvis. It extends more than an inch above the umbilicus, and reaches to the pelvic brim on each side. It is dense, painless, and free from fluctuation, and cannot be moved in any direction by any justifiable amount of force. A vaginal examination shows that it also fills the pelvic cavity, and forces the os uteri firmly up behind the symphysis

pubis. A flexible catheter mounted on a wire and pushed into the cervix, marks a depth of six and a half inches. A metallic sound cannot be introduced more than an inch.

As the case was clearly not a proper one for surgical interference, I advised the use of ergotine by hypodermic injection.

The patient returned to her home on the 15th of June, and the injections were commenced on the 18th. They were given by her husband, to whom I had furnished a syringe and the ergotine solution, and whom I had instructed in their use.

In a letter, dated Sept. 8th, Mr. W. informed me that his wife was much improved. Her general health was better, and she was able to walk out daily. There was no diminution in the size of the tumor, so far as he could determine, although his wife thought it was smaller. The hemorrhages were very much reduced in number and amount. In another letter, dated March 2, he says: "My wife is about the same as when I wrote you last fall. The bleedings do not come on oftener than once in three or four weeks, and do not last more than three or four days. There are some clots, but they are small and stringy. We stopped using the injection about six weeks, but the bleeding was worse, and we returned to it. She only takes one or two doses of laudanum now, on the first day of the discharge."

CASE II.—*Tumor of the Posterior Uterine Wall—Hypodermic Injection of Ergotine—Disappearance of Tumor.*

Rachel G., a mulatto, twenty-nine years of age, was admitted to the Woman's Hospital of the State of Illinois, July 2, 1873.

She commenced menstruating at thirteen, and was married at twenty-one. She had a miscarriage seven years ago, and has one child six years old. Has not been pregnant since the birth of the latter. Menstruation returns regularly every twenty-four days, lasts four days, and is not attended by unusual pain. About one year ago her health began to fail, and about the same time she discovered a "lump" in the left lower side of the abdomen, which at times was tender under pressure. This enlargement has steadily increased in size, and has assumed a more central position in the body.

Her general health seems very much impaired. Her appetite is poor, bowels constipated, and she does not sleep well. She complains of much pelvic pain and bearing-down when she walks;

pulse small, weak and irregular. She is anæmic, and states that the urine is habitually colorless. Since last April has been confined to bed the greater part of the time.

On examination, the abdominal walls are found to be excessively tense and unyielding. A tumor with irregular outline is felt above the symphysis pubis, extending half way to the umbilicus. It is hard, nodulated, almost immovable, and painless. Subsequent exploration by sponge-tent and sound, shows that the tumor is a uterine fibroid of the posterior wall. The os and vaginal portion of the cervix are normal. The sound penetrates four inches.

It is decided by the hospital staff to make trial of the hypodermic injection of ergotine, but inasmuch as a menstrual period is expected in a few days, it is deemed advisable to defer the treatment until after the cessation of the flow.

July 19th. The discharge ceased two days ago, and the use of the ergotine is commenced to-day, the point selected for the introduction of the syringe being the abdominal wall, directly over the centre of the tumor. The treatment was repeated daily to August 11th, when, owing to an attack of gastric disturbance, it was discontinued until the 17th, at which time it was recommenced, and continued thence daily to August 31st, when it was again suspended by the occurrence of menstruation. The discharge lasted three days, was very scanty, and was attended by much less pain than usual.

September 3rd the injections were resumed, and continued daily to October 16th, when menstruation again appeared, the flow this time lasting four days. They were not used afterwards. During the first few days of the treatment each injection was followed within an hour by pain referred to the uterus. Occasionally, too, it was followed by vomiting. On the 22nd of July, four days after the commencement of the treatment, there was an evident decrease in the size of the tumor; and on the 6th of August an examination by abdominal palpation failed to discover its existence above the pubic bone.

Another very marked effect of the drug was shown in the promptnesss with which it lengthened the inter-menstrual period. For nearly a year this had not exceeded twenty days, but the first interval after using the ergotine it was extended to forty-five days.

The flow continued but three days, and was small in amount, the patient using only three napkins, whereas she had used twelve during the period immediately preceding. The second interval was forty-three days, and the third, thirty-one.

On November 22nd, a careful examination was made by Drs. Hurlbut, Lyman and myself, and the tumor was no longer discoverable. The only traces left of it were a thickened condition of the lower portion of the body, and supra-vaginal portion of the cervix of the uterus, together with some perimetric cellular induration. The sound entered three inches.

December 20th the patient again reports at the dispensary for examination. Her general health has been thoroughly re-established, and she is able to attend to all her household duties. The condition of the pelvic organs remains the same as at the last examination.

CASE 3. *Fibrous Tumor of the Posterior Wall of the Uterus—Hypodermic Injection of Ergotine—Diminution of the Size of the Tumor.*

Elizabeth W., colored, aged 36 years; entered the Woman's Hospital August 9, 1873, and gave the following history: Menstruation began at thirteen; she married at eighteen, and has one child seventeen years old. Her health was good until about two years ago, when she first noticed a tumor in the lower part of the abdomen. Prior to this discovery, however, menstruation had become more frequent and irregular, and for many years she has had leucorrhœa. She has had three attacks of sickness which were called inflammation of the bowels, the first occurring four years ago, and the last and most severe one two years ago. The last attack compelled her to remain in bed two months. Menstruation has become very profuse, returning every third week, and lasting eight or nine days. The discharge is attended with much pain. Its last appearance was August 1st. She also has constant leucorrhœal discharge, thick and tenacious in character, and of a greenish color. Her bowels are very much constipated, and emptied with pain and difficulty.

She is a large, fleshy woman, and does not present the appearance of one in ill health. The abdomen is occupied at its lower part by a smooth, hard, roundish, painless tumor, extending from one inch above the umbilicus to the symphysis pubis, behind which

it is felt passing into the pelvis. By vaginal examination the tumor is found to occupy the upper portion of the pelvic cavity, and to press strongly against the rectum. The os uteri is drawn up behind the pubic arch, but both it and the vaginal portion of the cervix are otherwise normal. The sound enters to the depth of five inches and five-eighths. The tumor is imbedded in the posterior wall.

The hypodermic injection of ergotine was commenced August 12th. The solution used in this case was composed as follows: ergotine, 2 drams; glycerine, 1 dram; distilled water, 5 drams. Of this, 12 minims were injected into the abdominal wall about one inch below the umbilicus.

It was followed by immediate pain, which continued several days, and finally resulted in the formation of an abscess. Owing to this mishap the injection was not repeated until the 19th. It was then used again, and continued daily without any unpleasant effect to September 4th, when menstruation appeared.

The discharge ceased on the 10th, and the treatment was resumed on the 11th, and continued every day to September 31st, when menstruation again appeared, and lasted six days. The injections were recommenced at the cessation of the flow, and continued to October 18th, when they were stopped on account of the inability of the patient to make a daily visit to the hospital, she having been an out-patient for some weeks.

From that time forward she took daily, by the mouth, the same dose as had been injected. The next menstrual period occurred the last week in October.

On November 22d an examination was made. The tumor was felt reaching to a level with the umbilicus, and the sound measured a depth of five inches.

Feb. 4, 1874. The last menstruation (exact date not attainable) lasted five days, and was less profuse and less painful than for many months before. The upper boundary of the tumor is now one inch below the umbilicus, and the sound enters to the depth of four and one-quarter inches. Patient is still under treatment.

April 8. Made an examination. The tumor is two and a half inches below the umbilicus; the sound enters four inches.

CASE 4.—*Fibroid of Anterior Wall of Uterus—Hypodermic Injections of Ergotine—Improvement of all the Symptoms, and Great Diminution of Tumor.*

Mary H., a dressmaker, forty-two years of age, unmarried; was first seen Sept. 20, 1873. She commenced menstruating at fourteen, and has been regularly unwell every four weeks, until within the past fifteen months, during which period it has become irregular, and more frequent—the interval rarely exceeding fourteen days. It has always been rather profuse than otherwise, but latterly this peculiarity has greatly increased, so that during the time of the flow she is frequently obliged to use four or five napkins daily. The length of the menstrual period has also increased, from four days to seven or eight. She passes many large clots with expulsive pains. There is some irritability of the bladder at times, which is increased at the menstrual period. The appetite is good, and the bowels inclined to be constipated.

An examination discloses the presence of an abdominal tumor, extending downwards into the pelvis, from a point one inch below the umbilicus. It is irregularly ovoid in shape, with a distinct nodular projection on the right side, producing a decided bulging to the right of the median line. Exploration by the vagina and rectum reveals the fact that a large tumor, involving the anterior wall of the body and cervix of the womb, nearly fills the pelvic cavity. So firmly is the os pressed back against the rectum, that I find it impossible to pass even the smallest sized metallic sound. With much difficulty, after forcing the womb upwards by hypogastric pressure, I at last succeeded in passing a small elastic bougie to the depth of four inches, but felt convinced that this was not a sufficient test of the depth of the uterine cavity.

Oct. 9. A sanguineous discharge, lasting eight days, ceased yesterday morning, and the subcutaneous injection of ergotine is commenced to-day, the point selected for operation being the abdominal wall, a little to the right of the linea alba, and over the most prominent part of the tumor. It is repeated daily in this locality for twelve days, when, in consequence of some soreness having been produced, it is used near the umbilicus.

On November 5, the patient commenced menstruating, and the injections were discontinued. The flow, which was less profuse

than for many months, lasted six days, during which time she remained in bed or on a lounge.

November 13. The injections were recommenced, and continued daily. On the 20th, a careful examination showed that the tumor had greatly decreased in size, its upper boundary not being discoverable more than one inch above the pubic bone. The examination (a sound was not used) was followed by a sanguineous discharge, lasting one day. It was not attended by pain.

December 8th. Patient has just ceased menstruating. The flow commenced on the 3d, and has been natural as regards quantity and quality. She suffered a good deal of pain during the first thirty-six hours, but had none during the subsequent days of the period. The fundus of the womb, still presenting an irregular outline, with a right lateral prominence, is felt just on a level with the superior border of the pubic bone.

From this time forward, the injections were used irregularly, at intervals of two, three or four days. The patient's general health having greatly improved, she felt less interest than formerly in keeping up the treatment. The last examination was made Feb. 6th, and at that time there was no perceptible change in the condition of the womb since the preceding one. It still rose to the level of the pubic ridge. Menstruation had been regular and comparatively painless, and she regarded herself as wholly recovered.

CASE 5.—*Subperitoneal Tumor of the Uterus, Complicated with Vaginismus—Hypodermic Injection of Ergotine—No Improvement.*

Ellen P., a Canadian, aged twenty-eight years, is unmarried. She did not menstruate until nearly nineteen. She was sickly during infancy and childhood. At fifteen there seemed to be an attempt at menstruation, indicated by recurring pains about the pelvis and loins, headache and nausea. These attacks occurred at intervals of four or five weeks and during their continuance she had a rather copious leucorrhœa. Treatment at that time, continued during the greater part of a year, was employed to establish the menstrual function, but without avail, and the molimenal symptoms gradually subsiding, it was finally given up. At nineteen, these symptoms again appeared, and menstruation was at length established, although the discharge has always been scanty, pale,

and accompanied by great pain. It has never lasted more than three days, and has never returned in less time than four weeks.

Nearly six years ago she noticed a slight fullness or lump above the pelvis, which she could push from side to side, and which seemed to her to be about the size of a hen's egg. It varied in sensitiveness, being at times quite tender, and at others not at all so. Once she had severe pain in the part, lasting several days, and since that time it has not been so freely movable as before. It has enlarged somewhat, but very slowly.

She is pallid and thin; appetite poor, and bowels constipated. She has constant leucorrhœal discharge, somewhat irritating in character, but never very profuse.

On examination, I find the abdominal walls very thin, and the hypogastric protuberance is clearly evident by inspection. It is inclined slightly to the left side of the median line. An attempt to pass the finger into the vagina produces such excessive pain and spasmodic contraction, that I am obliged to administer chloroform in order to complete the examination.

By vagino-abdominal touch, the uterus is found occupying its normal position in the pelvis, but less freely movable than usual. Springing from the left side of the fundus I could clearly make out the presence of a tumor, having a tolerably broad base of attachment. It moved consentaneously with the womb. The sound entered to the depth of three inches.

The patient had heard of the treatment of uterine tumors by means of the ergotine injections, and was anxious to have a trial of it made in her case. I consented to the suggestion, but, at the same time, expressed the great doubt I felt as to its efficacy in the treatment of growths situated as this was.

Fifty-two injections were used in all, the first being given August 4. They were given daily, except in two instances, when an interval of two days occurred. They were also suspended during the menstrual periods. These latter were apparently more painful than before the treatment. An examination, made October 1st, showed no diminution in the size or condition of the uterus, and the injections were no longer used.

Remarks. The solution used by Hildebrandt was composed of three parts of ergotine, 7.5 parts of glycerine, and 7.5 parts of water. He preferred this on the ground that it produced much

less pain than the solution which had previously been used by Langenbeck in the treatment of aneurism, and which Hildebrandt himself first employed. Langenbeck's solution contained alcohol. Hildebrandt states that the solution used by him, as above, produced very little pain, and did *not* produce abscesses. The site selected by him for the insertion of the syringe was that part of the abdomen immediately over the tumor, although he remarked that the lower parts of the abdomen were more sensitive to puncture and injection than the parts around the umbilicus.

Guided by Hildebrandt's experience, I at first employed the solution recommended by him, and likewise selected the same portion of the abdominal wall for the place of puncture. However, I found that the injections *did* produce pain generally, and that occasionally it was very severe in character. Not unfrequently, too, they were followed by abscess. Under the impression that the presence of the glycerine might be the cause of these unpleasant effects, I next used a solution consisting of ergotine, 3 drams; distilled water, 9 drams. Of this solution, 12 minims were given with each injection. This, too, occasionally, was followed by pain and suppuration.

All of the solutions of ergotine that I had been using were turbid, and deposited a sediment on standing. Noticing this, I thought that possibly the inflammatory symptoms mentioned might be occasioned by the introduction into the cellular tissue of this insoluble portion of the ergotine. In a conversation upon the subject with Mr. J. P. Sharp, an accomplished druggist of this city, that gentleman assured me that all the ergotine found in the shops contained a small proportion of alcohol, and that it was impossible to procure a perfect solution of it without the aid of that vehicle. He suggested at the same time that an aqueous solution of ergot would probably answer my purpose, and be free from the objections I had found attending the use of ergotine. The suggestion has proved a most valuable one. He at once proceeded to prepare a solution according to the following form: "Fifty grains of the extract (Squibb's) are dissolved in 250 minims of water, the solution filtered and made up to 300 minims, by passing water through the filter to wash it, and the residue upon it. It represents ergot grain for minim, free from alcohol or other irritating substance."

Latterly I have used this solution exclusively, and thus far have seen no irritation, pain or inflammation result from it.

I no longer select the abdomen as the site for injection. Although some parts of the abdominal wall—as about the umbilicus, for example—may be less sensitive to puncture than others, yet all parts of it are more sensitive than the deltoid region; and inasmuch as this latter is more convenient, and the injections placed there equally efficacious, I now habitually select the arm in preference to any other part of the body.

Dr. J. H. Etheridge gave the details of treatment in one case, as follows:

Hypodermic Use of Ergotine in Uterine Tumor—Probably Fibroid. A case illustrative of the good effects of such medication.

Miss A. B. came under my care in June, 1873; æt. 16; has complained of great pain during menstruation for two and a half years; pain is paroxysmal, like labor; is of highly nervous temperament, well nourished; alimentary functions well performed; no trouble in defecating; no abdominal enlargement; kidneys functionate well, but micturition has been painful for many months. Physical examination: vagina small; introduction of finger difficult and somewhat painful; walls well lubricated; os normal; cervix rides high. Speculum repeals hyperæmic condition of cervix. Probe shows that there is retroflexion, a little toward the left side; depth normal. Upon reinserting finger, and passing it up between the uterus and bladder, a tumor, evidently pediculated and attached to the anterior wall of the uterus, and about the size of a large English hickory nut, was detected. It moved with the uterus. Diagnosis: subperitoneal fibroid tumor of the uterus. (Confirmed by Profs. Miller and Gunn, at subsequent examinations.)

Treatment: At first, stimulating applications were made to the cervix, as iodine, carbolic acid, silver, chromic acid, to excite absorption of the growth if possible. A fair trial of these, extending over eight weeks, produced no decrease in the tumor. Subcutaneous injections of ergotine were then resorted to, and fifteen or eighteen were given in all. At the end of that time (about forty days) the growth had disappeared about seventy-five per cent. The injections were then discontinued, because she was quite relieved from all symptoms on account of which she sought

advice. She now menstruates painlessly, and is growing stronger in every particular.

Dr. H. P. Merriman reported the following cases from the clinic for diseases of women at the Mercy Hospital:

I. Mary K., a widow with three children, applied for treatment Oct. 2, 1873. She complained of pain in the back, head and side; dysuria; constipation; stomachic uneasiness and vomiting.

A small submucous fibroid tumor was discovered in the anterior wall of the uterus, by Dr. W. H. Byford, which had occasioned some leucorrhœa and metritis. Ergotine was used hypodermically from Oct. 8th to Jan. 7th, on alternate days, with the exception of the menstrual periods and one or two Sundays.

She was discharged "well" on the last date given, though some slight endometritis remained. Some remedies had been exhibited for the relief of the dysuria, and the urethra had been once dilated, after which this symptom in the case disappeared. Mineral acids had been employed as tonics and laxatives for the bowels. Three small abscesses had been produced by the ergotine, but were readily relieved.

She had experienced considerable pain during the early part of the treatment, but as improvement continued, the injections produced no discomfort. At first, small indurated wens were formed at the site of the injections, as large as filberts, but were discussed without difficulty.

The preparation used was rather a mixture than a solution. It was a saturated solution of the ergotine in alcohol, of which two minims represented one grain of ergotine, the amount used at each injection. Considerable sediment was deposited when the solution was undisturbed for a time.

The speaker regretted that he had lost sight of this patient, as she was a servant girl and had probably returned to service. He referred to the difficulty of keeping trace of out-patients, who usually ceased their attendance upon the Dispensaries as soon as benefit had been received.

II. Mary C., aged thirty-four years, married, without children, and having had no miscarriages, applied for treatment Feb. 5th. Has cephalalgia with lumbar and dorsal pain. Menses regular but profuse. Appetite fair, and normal stools. Says she has a "bunch in the side." On examination I found a subperitoneal fibroid tumor

in the left side of the anterior wall of the womb, with a pedicle as large as a goose egg. The tumor could be distinctly recognized above the pubes, and was so far movable that its top could be depressed to the brim of the pelvis. Two grains of ergotine were injected beneath the skin every alternate day, except during menstruation, and after the fifth injection all pain disappeared, and the tumor ceased to enlarge. She thinks it is now somewhat smaller, and states that her health is better than it has been for two years. Up to the time of commencing the injections the tumor had been rapidly increasing. She experiences no pain from the injections beyond that of the prick of the syringe needle. In this case no abscess was formed, and small indurations which occurred, as in the previous case, disappeared in two weeks.

Vaginal examination now reveals the uterus in a normal position. There is slight swelling of the veins and the uterine mass seems immovable. Patient is still under treatment.

III. Honora McC., single, aged twenty-eight years, applied Feb. 28, complaining of pain in right side and dorsum; flashes of heat over forehead and eyes; restlessness and anorexia. Bowels are regular, menses normal as to time, but colorless and scanty. The hymen is present.

An extra-mural fibroid tumor was discovered on the left side of the womb, with a small pedicle. Injections of ergotine were at once commenced, and the tumor has gradually, but slowly, subsided. Slight dyspepsia was complained of, after about one week of treatment.

Dr. S. Fisher (the President) then relinquished the chair, and read the following details of a case occurring in his own practice:

Case of Retroversion of the Uterus, Enlarged by a Submucous Fibroid Tumor—Uterus Replaced, and Tumor Discussed, by Hypodermic Injections of Ergotine.

I first saw Mrs. S., Oct. 11, 1873. Aged 47 years; bilio-nervous temperament; has given birth to four children, the youngest eight years old; menstruation normal in regard to time, but rather profuse; complains of difficulty in urinating, and has found it necessary to have the bladder evacuated by the catheter a number of times; feels pressure on the rectum, preventing the free discharge of the feces. On making a vaginal examination I found

the pelvis filled with a solid substance pressing upon the perineum, so that I could not pass my finger back into the vagina, without pressing the latter downwards. The os could only be found by passing two fingers high up behind the pubes; the os and neck seemed to be enlarged and flabby. As the patient was quite fleshy, pressure above the pubes did not assist in the diagnosis. However, I ventured to call it retroversion of the uterus, enlarged by a fibroid tumor. In order to satisfy both myself and the patient, of the exact nature of the case, before proceeding to operate, Prof. Byford was called the next day, to consult with me. He confirmed my diagnosis, and agreed with me in regard to the plan of reduction. The day after this, the 13th, I proceeded to replace the uterus by introducing a round piece of wood, about an inch in diameter, smooth and rounded at the end, into the rectum, making steady pressure against the fundus of the uterus, which soon began to yield to it, and in the course of twenty minutes it was pushed up three or four inches, putting the posterior part of the vagina on the stretch. The os at this stage could not be found, for by raising the fundus from the hollow of the sacrum to the promontory, it pressed the neck and os so high above the pubes that it could not be reached, showing that the uterus was much enlarged. I then introduced into the vagina a rubber bag, and inflated it with air, and left about two P. M. I was summoned to see her again at eight P. M. of the same day. She said that she had felt something give way internally about two hours previous to that time, producing great pain in the bowels, but was then easier. I made an examination and found the os in its normal situation, though quite open and flaccid.

On the 15th, I investigated the case thoroughly. The os was higher than usual and more open, so that I introduced my finger nearly an inch above the neck, and could feel the body of the uterus enlarged through the vagina. I passed the sound into the uterus three inches. I could now distinctly feel the uterine tumor above the pubes. and move it in any direction. It extended to a point half way between the umbilicus and pubes. The difficulty in voiding the urine and feces was entirely removed, and she was in every respect very comfortable. Debility and nervousness were only complained of. From this time, Oct. 15th, I saw her occasionally, and prescribed tonic remedies only, but did nothing

specially for the uterine tumor until Feb. 4th. At that time the tumor appeared a little larger than when I examined it in October; it was movable, and she could feel it falling from side to side, as she moved. I then commenced the use of hypodermic injections of the following solution:

R. Ergotine, - - - dr. iij.
Glycerine, } - - - *aa.* dr. vij.
Water, }
M.

Injected hypodermically over the abdomen from thirty to forty drops of the above solution daily, according to effect, from the 4th to the 28th of Feb. The operation was performed every day at the same time (two P. M. to about four P. M.) She began at once to complain of pain in the back, with disagreeable sensations in the bowels, and occasional nausea. These symptoms generally continued more or less severe until the next morning. For the first few days after the injections were administered, she compared the sensation in the bowels to that of quickening in utero-gestation. After the first week, however, this motion ceased to be felt, but the uneasy feelings, pain and nausea continued as long as the injections were used, which was for twenty-four consecutive days. At the place where the point of the syringe was introduced the injection created tenderness, slight inflammation, and induration for the space of an inch or more in diameter in the surrounding tissues. She soon became quite nervous, and as it was time for menstruation to appear, the injections were omitted for one week. I then made an examination. The uterus appeared normal in size and position, but on account of the tenderness produced by the injections I could not examine satisfactorily above the pubes. For fear the tumor was not entirely discussed I continued the injections for five days, and then gave the same solution internally, in doses of forty drops daily, for a few days longer, which at first produced symptoms similar to those produced by the injections, but finally she felt no perceptible effect from them.

On the 19th of March, after the tenderness of the bowels had subsided, I made a thorough examination, by placing one finger on the os uteri, at the same time with the other hand making strong pressure above the pubes. By this method I could feel the size of the uterus, and it did not seem abnormal; the os and neck were

also reduced in size to their normal condition. There was no abnormal discharge from the uterus, either before or during the treatment, which proves that the tumor must have disappeared by absorption, induced by the continued action of the uterus making constant pressure upon the tumor. I called to see her again April 9th, but she was absent on a visit to see her friends in Indiana. I ascertained, however, that she left in good health.

Drs. Etheridge, Jackson, and Walter Hay then discussed some questions connected with the subject presented.

Dr. Peck reported a case in which he had employed hypodermic injections of ergotine. The woman, an opium eater, had a flabby uterus, with symptoms of purulent metritis. An attack of angina pectoris supervened when the remedy was employed, but relief was immediate after its discontinuance.

Dr. Emmons gave the details of a case under his treatment in which hypodermic injections of ergotine were used in the discussion of a uterine tumor.

Considerable discussion ensued as to the *modus operandi* of the drug. Dr. Hollister believed that the results were due to its influence upon the vaso-motor nerves of the sympathetic system, and referred to recent observations made by him upon the iris in cases of cerebro-spinal meningitis, where ergotine had been administered.

Dr. E. Powell stated that in a case of double popliteal aneurism, in which the disease on one side had been relieved by digital compression, ergotine, although injected for a period lasting one month, had failed to change the condition of the parts. He added that the same remedy had been used for some time in the Woman's Hospital of New York, and that upon the occasion of his recent visit to that city, he had been informed that as much as 100 grains of the extract had been injected, without avail, for relief of salmucus fibroid tumors. This use of the drug had been consequently abandoned.

Dr. F. H. Davis then presented a specimen consisting of a kidney with greatly enlarged attached ureter, and heart enclosed in an ossified pericardium. He read from advance sheets of the *Medical Examiner* the ante and post-mortem history, and account of the microscopic examination of the degenerated tissues.

Dr. F. A. Emmons then presented the uterus of a woman who-

had died under the suspicion of having had an abortion produced upon her. A coroner's jury had rendered a verdict of death from uterine hæmorrhage. Dr. Emmons stated that Dr. R. H. Bingham believed an abortion had been produced. He himself believed the woman died from the effects of the uterine hæmorrhage. Dr. Simon expressed a dissenting opinion. He thought death had resulted from septicæmia. A purulent focus had been discovered in the substance of the cerebrum. Others existed in the uterine walls.

The lateness of the hour precluded further discussion.

Dr. Wilder requested suspension of the rules for the purpose of making a nomination for membership. Unanimous consent having been obtained, he nominated Mrs. Augusta P. Keat, a graduate of the "Woman's Hospital Medical College of Chicago."

The Secretary stated, that, while the Constitution did not expressly exclude the admission of women as members, certainly the precedent of such action had not yet been established, and he advised that the general principle be either adopted or rejected before the name of the candidate was referred to the Board of Censors.

Dr. Powell moved the passage of the following resolution:

"*Resolved*, That it is the sense of this Society that female physicians are ineligible for its membership.

Dr. Merriman moved to lay the resolution on the table, and his motion, after being seconded, was declared to be lost by the chair.

A division of the house was called for, and the decision sustained.

The question recurring to Dr. Powell's motion, the resolution prevailed by a large majority.

The Secretary announced, that in addition to the paper of Dr. Montgomery, Dr. C. Paul Simon would present at the next meeting, in conjunction with Prof. DeLafontaine, a joint paper on "The Spectroscopic Properties of Old Blood," with demonstrations.

The Society then adjourned.

Chicago Medical Society. Reported by WILL. T. MONTGOMERY.

Regular semi-monthly meeting, May 4, in the parlor of the Gault House. President Wm. E. Quine in the chair. Order for

the meeting: Reports of cases and exhibition of pathological specimens.

The President reported a case of puerperal septicæmia that had occurred in the Cook County Hospital during the prevalence of puerperal fever, which seemed to afford striking evidence of the utility of local medication in the disorder.

The patient, a primapara, aged 20, was delivered, after a quick and easy labor, which resulted, however, in bad laceration of the perineum, of a healthy male child, weighing eight and a half pounds. The uterus did not contract very firmly, though an unusual amount of blood was not lost, and the after pains were not severe. On the second day after delivery, a copious secretion of milk was established, and the lochia was profuse, sanguinolent, and without offensive odor. In the evening castor oil was given by the nurse without orders from the physician. On the third day the patient seemed bright, vivacious and cheerful. She had had several movements of the bowels, and complained of nothing but intense pain in the forehead. Her eyes were red as though she had been weeping; the pupils contracted; tongue coated with a creamy fur; pulse 132, small and soft; respirations 36; temperature 104°. No pain in any part of abdomen, and no gaseous distention; uterus high and flabby; lochia dark brown, very profuse, and insupportably fetid; urine of normal character and quantity, though it had to be drawn off. During the day she experienced a succession of rigors, which were soon followed by increased acceleration of the pulse, elevation of temperature and profuse sweating. Quinine, gr. ij, and opium, gr. j, were directed to be given every three hours; sponge baths twice a day, and an intra-uterine bath of an aqueous solution of permanganate of potassium three times a day. The last-mentioned procedure was conducted in the following manner: The patient having been placed on a bed-pan, the disinfecting solution, strength 1 gr. to oz. i, to the amount of a pint, was allowed to flow into and out of the uterus through a double canula catheter from an ordinary nasal douche apparatus. No pain or inconvenience was complained of by the patient from the application. When the first application was made the pulse was 132. On the fourth day it was 128; on the fifth, 120; on the sixth, 118; on the seventh, 92; on the eighth, 82—the observations being taken at the same time of day. The pulse invariably fell from five to fifteen beats within two hours after the injections, though it rose quickly again, but only once above the original frequency. On the fifth day the patient seemed dull and listless; had no pain, and complained only of a feeling of soreness when pressure was made in right iliac region; diarrhœa and profuse sweating; her tongue was coated posteriorly with a creamy fur, while the tip and edges were very red, and the papillæ prominent. The abdominal walls were flaccid, and gurgling felt in right iliac fossa; uterus lower

and firmer than before; the lochia abundant still, but much less offensive; urine normal in quantity. The previous prescription was now discontinued, and turpentine gtts. xv in emulsion was directed to be given every four hours alternately with quinine gr. ij, and hydrochloric acid gtt. iv. The patient being unable to retain either of the mixtures, they were omitted, and pills of quinine gr. ij, morphia gr. $\frac{1}{8}$, and strychnia gr. $\frac{1}{60}$, given every three hours. There was an abatement of all the symptoms corresponding with the decline in frequency of the pulse, and improvement in character of lochia, and on the eighth day she felt quite well and strongly desired food, though there was incomplete involution of the uterus.

The case presented two points of interest: it was one of pure uncomplicated septicæmia, and was unquestionably influenced more favorably by local than internal medication.

In the discussion of the case, Dr. Paoli, Vice-President of the Society, said he had found the sol. of permang. of pot. a very excellent one to use as an injection in offensive uterine discharges, but referred to the fact that uterine injections are condemned by most authors, on account of sometimes producing uterine colic. He thought it very difficult to distinguish between puerperal septicæmia and puerperal fever. Dr. Peterson thought the amount of force used in giving uterine injections had much to do in producing colic, and that the fluid should be passed in very gently. Dr. Stilliaus said he had experienced very satisfactory results from the use of uterine injections by means of the double canula catheter, and thought there was no danger of producing uterine colic when it was used. The President explained that uterine *injections* had not been given—only baths. He agreed with Dr. Paoli as to the difficulty of distinguishing between the various affections included under the head of puerperal fever. The latter term is used generically: in one instance applied to septicæmia, in another to phlebitis, in another to lymphangitis, in others to cellulitis, metritis, peritonitis, etc. It was not ordinarily difficult to tell when any one or more of these morbid states existed—generally several of them co-existed. The speaker then detailed the points of difference between the various disorders named, which would serve in establishing a diagnosis, and, in alluding to the etiology of puerperal fever, said that, while it occurred spontaneously and sporadically, there is a specific and infectious puerperal poison, which is not contagious, however, in the sense that variola poison is. The puerperal poison may give rise to one or more of several widely different morbid states, all of which, however, are included under the head of puerperal fever. One patient may contract a metro-peritonitis or septicæmia, or a cellulitis from another, who has neither of the disorders mentioned, but some other form of the disease. A patient may even contract a fatal puerperal fever from one laboring under any of the ordinary infectious diseases.

Clinics.

Case of Epilepsy. *Rush Medical College. Diseases of Brain and Nervous System.* Service of Dr. WALTER HAY. Reported by Henry L. Harrington.

Patient, a woman, thirty-five years of age. Single. Five years ago was thrown from a horse, striking upon her head. Remained unconscious for an hour; suffered from the injury but a few hours. This was in September. The following April commenced having the attacks, at first in the night. Preceding the fit has experienced a sensation as if something were rising from the stomach to the throat. Generally cries out when attacked, and falls down, losing consciousness, and becomes convulsed, the muscles of the face and neck being first affected. Has sometimes bitten her tongue during the attacks. At times has no convulsion at all, but simply loses consciousness for a few moments, the face becoming pale. The attacks have continued to the present time, being most frequent at night. Says her memory is failing, and that her sight has become weakened. Suffers from headache a great deal. Has taken the bromide of potassium more than a year, not regularly, but when she felt that the fit was coming. The severe attacks have been ameliorated by the medicine, but the slighter ones have not been affected. Knows of no cases of the disease in her family. On examination, the patient is not well nourished; is anæmic; the pupils are dilated, tongue flabby and indented; appetite variable; bowels regular. She was ordered the following: Sodii Bromidi, oz. ij. Aquæ, O. ij. Of which to take one tablespoonful three times daily.

Remarks.—The case is interesting from the fact that both forms of the attack are present in the same case, and also illustrates the fact that the attack which occurs without any convulsions is the most obstinate and uncontrollable. In this case the predisposing cause probably consisted in the condition of the patient, and the exciting cause was the injury. The prognosis is unfavorable as regards a complete cure, but we may hope to ameliorate the symptoms by rendering the attacks less frequent.

CASE 2. Left hemiplegia. Man, aged thirty-three years. He has been a fireman for eight years. Six months ago he became suddenly paralyzed, without losing consciousness. He has since regained, to a certain extent, the use of his leg, and can walk, but has to use a cane, and drags the left foot. The arm is still nearly useless. At first the face was also affected, being drawn to the left side. Neither sight nor hearing have been at all affected, nor has intellection. He has had electricity applied, with but little benefit. The patient is not well nourished; face pale; pupils are

dilated; tongue normal; appetite poor; bowels regular; urinary organs healthy. The circulation is very torpid upon the left side. He was ordered the following: R. Strychniæ (granules) *aa* gr. $\frac{1}{60}$, three times daily. And also the use of electricity in the form of the interrupted current.

Remarks.—The case is one of left hemiplegia, the face, however, being paralyzed upon the right side. It is probably due to cerebral hemorrhage upon the right side in the region of the pons varolii and crura cerebri. Considering the age and constitution of the patient, the prognosis is favorable, though it will take some months to effect a cure.

CASE OF LITTLE GIRL AGED TWELVE YEARS. The mother says the child has trouble in speaking and reading. Upon having her repeat the alphabet, it is noticed that she has difficulty in pronouncing the vowels, but not so with the labials. Her general health is poor; she does not play, seems too weak. Her face is pale; pupils dilated; conjunctiva has a pearly lustre; tongue smooth and pale; hands cold; appetite poor, and she does not sleep well; her bowels are regular; pulse seventy-two per minute, small and irregular. She has a dry cough, and at times has pain in the epigastric region, if she walks fast or runs. She does not eat fat meat or butter; does not like them. She was ordered the following: Strychniæ, gr. j.; Olei Morrhuæ, Syrupi Zingiberis, *aa* oz. iv. Of which she should take one teaspoonful after meals and at bedtime. Also to have good nutritious diet, and gentle exercise in the open air.

Remarks.—There is no organic lesion present, but the condition is one of hysteria. There is no paralysis of the lips or tongue. The trouble in pronunciation is due to an irregular supply of nerve force to the muscles of the larynx. Prognosis is favorable.

Obituary.

At a called meeting of the Zanesville Academy of Medicine, held Saturday, May 2, to take action in relation to the death of its late Fellow, Dr. Jno. G. F. Holston, Sr., which took place at Washington, D. C., May 1, 1874, the following resolutions were adopted:

That we, whose occupation has been to relieve human suffering, are reminded that the time must come when our places on earth shall be vacated; therefore,

Resolved, That in the death of Dr. Holston, the Zanesville Academy of Medicine loses one of its prominent members, the profession at large an eminent physician and surgeon of extensive professional and literary culture, ripe experience, and accurate judgment, and society a warm-hearted, genial and generous member, whose life has been mainly devoted to the good of his fellow-beings.

Resolved, That we attend the obsequies of our deceased Fellow in a body.

Resolved, That we deeply sympathize with the family and relatives of the deceased.

Resolved, That the Corresponding Secretary transmit a copy of these resolutions to the family, the city press, and the medical journals.

A. E. BELL, Secretary *pro tem.* C. C. HILDRETH, Chairman.

Editors' Book Table.

NOTE.—All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.

A Practical Treatise on the Diseases of Children. By J. FORSYTH MEIGS, M.D., and WILLIAM PEPPER, M.D. Fifth edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. 1874.

Our limits permit us but a brief notice of this admirable work. It has been practically criticised by the profession at large long and thoroughly, the verdict being a demand for a fifth edition.

A careful examination of the book will satisfy the honest reviewer that it is the result of the most laborious and extensive investigation, affording a comprehensive summary of the state of medical science of to-day. The most captious critic will weary in his search for defects in this most valuable contribution to American medical literature.

Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States, for the fiscal year 1873. By JNO. M. WOODWORTH, M.D. Washington: Government Printing Office. 1873.

The above report is a fair exhibit of what may be accomplished by industry, honesty, fearlessness, and good administrative ability, in the service of the General Government, and suggests the immense gain which would accrue from the application of the same qualities in all other departments of the Government, in many of which they have been sadly wanting.

The advantages resulting are best summed up in the language of the Report, viz:

To *increase* the number of customs districts in which hospital relief is furnished, nearly 27 per cent.

To *reduce* the average daily *per capita* cost of such relief about 20 per cent.

To *increase* the collection of hospital dues 16 per cent.

To *reduce* the total cost of the service 9.4 per cent.

To *reduce* the net cost to the Government over 51 per cent.; and, as a consequence,

To *diminish* the amount of the deficiency appropriation for the current year to only 40 per cent. of that of 1871.

In the chapter on "Hospitals and Hospital Construction," Dr. Woodworth, we are glad to say, condemns the old system of construction, upon hygienic principles, and compares the recently com-

pleted illustration of feudalism and the dark ages, called the Marine Hospital, at Chicago, with the cheap, airy and healthy Pavilion Hospital at San Francisco, very much to the disadvantage of the former, which cost enough to build eight of the latter.

Dr. Woodworth cannot confer a greater boon to his old home, Chicago, than by impressing his views upon this subject upon the County Commissioners of Cook County, pending their protracted deliberations upon the best mode of constructing the County Hospital.

The Report is supplemented by a map, accompanied by a description of the distribution and natural history of yellow fever, as it has occurred at different times in the United States, by J. M. Toner, M.D., President of the American Medical Association, Washington, D. C.; the map indicating not only the localities, but also the elevation at which the disease prevailed above the sea level.

Appended to the Report are the details, with photographic illustrations, of certain cases of injuries, so that the Marine Hospital Department, for the first time, is made, under Dr. Woodworth's able administration, to contribute something of its quota to the advancement of medical knowledge. H.

The Puerperal Diseases. Clinical Lectures delivered at Bellevue Hospital, by FORDYCE BARKER, M.D., Clinical Professor of Midwifery and the Diseases of Women, in the Bellevue Hospital and Medical College, etc. New York: D. Appleton & Co. 1874.

Few men in the country are better fitted, by innate ability, general accomplishment, and practical experience, to write authoritatively upon the subject of puerperal diseases than the author of this treatise; and it is with no small pride that we recognize our distinguished countryman as the pioneer in this department of English medical literature.

The work derives additional value in being not so much a transcript of the status of scientific opinion upon the important subject which it embraces, as a digest of clinical experience, the record of observation at the bedside, and the inductions therefrom.

The work is comprised in twenty-two lectures, in which all, or nearly all, the incidents and accidents of the puerperal state are elaborately discussed.

The subject of puerperal convulsions receives, as it merits, special attention, and we are glad to see that the author rejects the theory (of Braun) of the essential relations of albuminuria, uræmia and convulsions; for, while their frequent coincidence is undoubted, it is likewise true that either of these conditions may occur without the other. Moreover, the author takes another step in advance in the pathology of this terrible malady, by indicating

the nervous rather than the vascular system as the starting point of the convulsive phenomena. It is to be regretted that he has not defined more clearly the pathological relations between the convulsion and the cerebral congestion which accompanies its subsidence, and which is by too many still regarded as an essential factor in the production of the convulsion.

Now, the two conditions, cerebral hyperæmia and convulsion, are essentially antagonistic, as has been demonstrated repeatedly by experiment; and, while the hyperæmia in this case constitutes a phase in the pathology of the disease of vital importance, in view of its consequences, it is, nevertheless, but an epiphenomenon of the convulsion, and has a distinctly secondary relation thereto.

The establishment of the true pathological relations of the various phases of this fearful disease will alone clear the way to a rational therapeusis.

While there are, undoubtedly, differences in degree and intensity, we are totally unable to perceive any essential difference between puerperal convulsion and epilepsy; the puerperal state, in the one case, acting as does the neurotic diathesis in the other, by inducing a hyperæsthetic condition of the excitable ganglia of the cerebro-spinal system, awaiting only the application of an exciting cause to arouse its fullest morbid activity.

The chapters upon Puerperal Mania are very satisfactory. The author is very decided in his recognition of moral and mental influences as the most efficient agents in the production of this condition. He is likewise very decided in his opposition to all depletory or debilitating remedies; and, recognizing clearly debility as a constant factor in these conditions, teaches the necessity of restorative measures.

Dr. Barker rejects the theory of the traumatic or septicæmic origin of puerperal fever, which he considers as idiopathic, and to which the local inflammatory lesions bear analogous relations to those sustained by the pustules of small pox (for example) to the fever of that disease.

The line of demarcation between puerperal metritis and peritonitis and puerperal fever is very strongly drawn by the author—stronger, perhaps, than the evidence furnished by the authorities, so abundantly reported, would seem to justify.

His "confession of faith" upon this subject is admirably formulated into eight distinct propositions, which form an appropriate conclusion to the work of an able physician and an accomplished scholar, and which is destined to take its place among the classics of the profession.

The weary-eyed student, when he closes the book, will thank the Messrs. Appleton & Co. for the typographical perfection, which must commend it to all who appreciate the æsthetics of the book-maker's art. H.

A Clinical History of the Medical and Surgical Diseases of Women. By ROBERT BARNES, M.D., London, Fellow and Lumleian Lecturer (1873), Royal College of Physicians, etc. With one hundred and sixty-nine illustrations. Philadelphia: Henry C. Lea. 1874.

The field of gynæcology has become so comprehensive that a mere cursory glance at its more prominent landmarks, and a superficial description of its outlines, are all that are admissible in a journal of such restricted limits as our own. The magnitude of the subject has been firmly impressed upon our consciousness by an examination of the work of the great English gynæcologist.

The first five chapters are occupied with descriptions of the sexual organs, in which the points most noteworthy are the reiteration by the author of the opinions of Raney, Velpeau and Maygrier, of the use of the round ligaments as adjuncts in copulation, drawing, by their combined action, the uterus nearer to the symphysis pubis, thereby lengthening the vagina by means of the voluntary muscular fibres with which they are provided; and, further, the rejection of Robert Lee's demonstration of the uterine nerves, as contradicted by the later investigations of Hirschfeld, Richet, Boulard and Cruveilhier.

In the sixth chapter, the conditions demanding examination of the genital organs are discussed, and the necessity for such examination deduced from the following proposition, which formulates what we consider a radical principle of rational medicine:

"When the function of an organ is disturbed, the *prima facie* inference is that the organ itself, which constitutes the mechanism by which that function is performed, is out of gear." After the enunciation of a proposition so entirely in accord with the spirit of sound philosophy to be assumed by so distinguished an author as Dr. Barnes, we regret to find him qualifying it in the next sentence, as if startled at his own boldness: "This is not indeed always absolutely true, because an impaired state of the blood, or disordered innervation, or derangement of a different organ, may entail the functional disorder which arrests our attention." "The genital organs are no exceptions to this proposition." Nor, indeed, he should have added, are any other, and thus his first proposition would have comprehended the whole range of pathology.

Five chapters are devoted to the various discharges from the genital organs, in which category are included successively those consisting of mucus, water, air, pus and blood.

In the chapter on the "Significance of Pain," the author summarizes his definition of neuralgia and of hysteria in language deserving perpetuation, as "phases of aberrant, nervous action, the result of nervous exhaustion from disease, and mal-nutrition."

In the next chapter (XIII) the author coins a word which will

doubtless some day be engrafted into medical technology, like its congener "dyspepsia," *i. e.*, "dyspareunia," difficult copulation.

His description of instruments, aptly headed "The Gynæcologist's Bag," is very complete, and the mode of their application given in detail and graphically illustrated.

The relations of the two phenomena of ovulation and menstruation are very clearly defined.

The determination of the duration of the menstrual function is withdrawn from the domain of popular tradition and dogma, and based upon physiological premises. Quoting Negrier, he says: "It seems well proved that the ovarian function, creative of germs, is prolonged in life in the direct ratio of the volume of the ovaries and of the precocity of ovulation."

The morbid conditions of the genital organs are treated successively in the order of their pathological importance, from those of the ovaries to those of the vulva. Time and space fail us for the further analysis of this work, a complete gynæcological library in itself, without which no gynæcological library would be complete.

H.

BOOKS RECEIVED.

A Manual of Toxicology; including the Consideration of the Nature, Properties, Effects, and Means of Detection of Poisons, more especially in their Medico-Legal Relations. By JNO. J. REESE, M.D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania. Philadelphia: J. B. Lippincott & Co. 1874.

A Treatise on Therapeutics; comprising Materia Medica and Toxicology, with especial reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. WOOD, Jr., M.D., Professor of Botany, etc. Philadelphia: J. B. Lippincott & Co. 1874.

Ligation of Arteries. By Dr. L. H. Farabeuf, Aide d'Anatomie a la Faculte, ancien interne des Hopitaux de Paris. Translated by JNO. JACKSON, M.D., of Danville, Kentucky. Philadelphia: J. B. Lippincott & Co. 1874.

The Science of Homœopathy; or, a Critical and Synthetical Exposition of the Doctrines of the Homœopathic School. By CHARLES J. HEMPEL, M.D., etc., etc. Bœricke & Tafel, New York, etc. 1874.

Manual of Eye Surgery. By A. J. HOWE, A.M., M.D., Author of a Treatise on Fractures and Dislocations, etc., etc. Cincinnati: Wilstach, Baldwin & Co. 1874.

PAMPHLETS RECEIVED.

The Annual Report of the Massachusetts Eye and Ear Infirmary. 1874.

The Anatomical, Pathological and Surgical Uses of Chloral. Read before the Pathological Society of Philadelphia, March 12, 1874, by W. W. KEEN, M.D., Lecturer on Anatomy in the Philadelphia School of Anatomy. Philadelphia: J. B. Lippincott & Co. 1874.

The Theory and Art of Bread-Making, Without the Use of Ferment. By Prof. E. N. HORSFORD.

Transactions of the Fourth Annual Session of the Medical Society of Virginia.

Remarks on the Management of the Intermaxillary Bone in Double Hair Lip. By W. R. WHITEHEAD, Denver, Colorado.

Herpes Gestationis; a Rare Affection of the Skin, Peculiar to Pregnancy. By L. DUNCAN BULKLEY, M.D. New York: William Wood & Co. 1874.

Extract from a Report on the History of the Surgery of Tennessee, comprising the subjects of Stone in the Bladder, Ovarian Tumors, Vesico-Vaginal Fistula. Made to the Tennessee State Medical Society, by Wm. T. BRIGGS, M.D., Professor of the Principles and Practice of Surgery, in the University of Nashville.

Boylston Medical Society, of Harvard University. Catalogue. March, 1874.

Climate in Pulmonary Consumption, and California as a Health Resort. By LEWIS ROGERS, M.D. Louisville: Jno. P. Morton & Co. 1874.

JOURNALS RECEIVED.

The American Journal of the Medical Sciences—April.
" American Practitioner—April and May.
" Atlanta Medical and Surgical Journal—May.
" Boston Journal of Chemistry—May.
" Buffalo Medical and Surgical Journal—April.
" Chicago Journal of Nervous and Mental Disease—April.
" Clinic, Cincinnati—April 18, 25, May 2, 9.
" Cincinnati Lancet and Observer—May.
" Canada Medical and Surgical Journal—May.
" Druggists' Circular—April and May.
" Detroit Review of Medicine and Pharmacy—April and May.
" Dental Cosmos—May, 1874.
" Indiana Journal of Medicine—April and May.
" London Lancet—April, 1874.
" Medical Examiner, Chicago—April 15, May 1.
" Medical Times, Philadelphia—April 18, 25, May 2, 9.
" Medical and Surgical Reporter, Philadelphia—April 18, 25, May 2, 9.
" Medical News and Monthly, Philadelphia—April.
" Medical Herald (Leavenworth)—April and May.
" Medical Record, New York—April 15, May 1.
" Medical Press and Circular, London—April 15.
" New York Medical Journal—May.
" Northwestern Medical and Surgical Journal—May, 1874.
" Nashville Journal of Medicine and Surgery—April.
" Pharmacist—May, 1874.
" Practitioner, London—April, 1874.
" Le Progres Medicale, Paris—Nos. 11, 12, 13, 14, 15.
" Richmond and Louisville Medical and Surgical Journal—May, 1874.
" St. Louis Medical and Surgical Journal—May, 1874.
" Southern Medical Record—April, 1874.
" Virginia Medical Monthly, Richmond—Vol. 1, Nos. 1, 2, April and May.

Editorial.

Who is He ?

We mean the Chicago physician who is being advertised extensively in the rural medical journals as having been presented with a silver mounted skeleton by his admiring friends. We fear some of our bucolic friends have been hoaxed.

The *Philadelphia Medical and Surgical Reporter* tells a new (!) story of a Chicago physician, also a real estate operator, directing his patient to take her medicine "a quarter down, and the balance in one, two and three years." This was a very good story about thirty years ago, *i. e.*, about twenty years before the alleged author was himself invested in real estate "dust to dust."

"The cry is, Still they come." *The Medical News*, copied by the *Times* and *Clinic*, enumerates the graduates of the various medical schools, omitting entirely the seventy-seven who claim Rush Medical College as their *Alma Mater*. If the lists are not already filled, will the journals referred to be kind enough to make a little room for these, as some of them are really deserving of mention, numerically, at least.

Directory for the Month.

We take the liberty to call the attention of those of our readers most directly interested, to the "Directory for the Month," to be found on the last page of each number of the JOURNAL. It was designed for the especial benefit of members of the profession visiting the city (or residents) who may desire to know where a leisure hour may be passed both pleasantly and profitably.

An examination of this page of the JOURNAL will show that very few hours in the week are unimproved by the large corps of professional teachers and pupils to be found in this city. It will show, moreover, that the "facilities for acquiring a medical education" are quite as great in Chicago as can be utilized advantageously by the most diligent student, who will have no one to blame but himself for every idle hour. We trust that those interested will notify us of any corrections necessary to make the directory accurate and complete.

H.

The Dignity of the Profession—

Might be the text, were one disposed to be sarcastic: the commentary thereupon—a sharper than which the keenest sarcasm would fail to write—would be the recent scramble for the office of City Physician, so lately terminated in the Common Council of Chicago, and the remarks of the daily press upon contest and contestants. How is it possible for the medical profession as a body to expect deference and respect from the public, when its members condescend year after year to take part in these undignified struggles for paltry municipal offices? In that which has just terminated there were ten or a dozen participants, whose names, professional reputations and private characters were discussed in the Council and in the public press in the manner and style of pot-house politicians. If the one-half of the derogatory remarks made of them was true, the large majority was totally unfit for the office of City Physician, or, indeed, for any other office of trust or emolument whatever; if, on the other hand, the comments were untrue, then surely no respectable physician should ever consent to place himself in a position in which his personal and professional pride must sustain such bitter humiliation.

Some, unfamiliar with the facts, might ask, For what great prize is this contest sustained? Is the position one of such dignity and honor, or so well paid pecuniarily, as to compensate for the odium of the contest for its possession? The dignity and honor is all that which can be gleaned in the cells of the city prisons and station houses, and the compensation a little larger than that which is paid to the veterinary surgeon for caring for the sick horses of the fire department.

The members of the medical profession would much better advance their own interest, individually and collectively, by keeping aloof from such unseemly contests until the office should seek the man, not the man the office. They could then dictate the terms and conditions of acceptance, and thus become masters of the situation, and not, as now, the mere appendages of some petty ward politician. Members of the profession, appreciative of the demoralizing influences to which the holders of these petty municipal offices are constantly subjected, are never found amongst the applicants for such positions; for it is certain that few who allow themselves to be thus drawn through the mire of municipal poli-

tics escape without a stain. If young men would perceive the fact that the occupancy of such positions has hitherto been an obstacle rather than an aid to professional advancement, they would avoid rather than seek them. Local administrations needing medical services would be compelled to seek them, and moreover to pay adequately for them when found. H.

The Medico-Historical Society.

Two years ago two physicians of this city issued a Medical Register and Directory, containing "a description of the medical colleges, hospitals, infirmaries, asylums and charitable institutions, together with the medical and other scientific associations of the State of Illinois."

This was subjected to the revision of "the presidents of the regular medical colleges and societies of Chicago, and of the Illinois State Medical Society."

This enterprise was an effort in the right direction, and although by no means perfect, received, as it merited, general commendation. But this commendation was not universal, and the projectors of the Register were violently assailed, and threatened with vengeance dire by some whose names were excluded from the published list of reputable practitioners.

In order to avoid the personal annoyance to which individuals could not fail to be subjected in the publication of such a work, it was deemed advisable to organize a society which should comprise this amongst certain other duties. With this end in view, a call was issued to a large number of physicians to meet for the purpose of effecting such an organization.

Thus far all seemed well; the intention was commendable, and the mode of its execution apparently correct, but there was in that call an error, the first of several since committed, which may prove radical obstacles to the growth and efficiency of a well-intended institution.

Error number one consisted in the calling of the meeting at the office of a physician instead of in a public hall. The movement should have been exempt from the slightest suspicion that it originated under the auspices of any one man or party. Such suspicion could not fail to arise in the minds of many, under the circumstances surrounding this meeting, who would thereby (unwisely, indeed,) withhold from it their sanction or co-operation.

To obviate the consequences of this error, an effort was made, by one who comprehended the situation, to remove the consideration of the whole subject to another time and place, when and where it should be presented to the profession under the auspices of a committee selected for that purpose.

The second error was involved in the organization of this original meeting, by the selection for its officers of gentlemen (unexceptionable otherwise) holding similar positions in a medical society already in active operation, thereby suggesting the relation of subordination of the proposed to the society above referred to.

Error number three was made in the appointment of the committee of organization, which should not have been selected exclusively from those in attendance upon that meeting, about one-tenth of the numerical strength of the profession, but should have been more generally representative in its constitution.

Error number four, and in our humble judgment the most serious of all, both in principle and in practice, was the organization of the society by wholesale, those in attendance at the meeting resolving themselves into a society, etc., etc., etc., and this coincidently with the adoption of a constitution and by-laws providing definitely for the election of members by ballot, etc., etc. Herein was violated one of the radical principles of their organization, the practical effect of which may be to encumber the society with useless or objectionable material, of which it will be powerless to rid itself hereafter.

These remarks are designed to reflect invidiously upon no one identified with the movement, but are made under a strong conviction of the necessity for such an organization, of the good faith of its projectors, and at the same time, however, with a tolerably comprehensive acquaintance with the history of the profession in the city during the last seventeen years, and an accurate appreciation of its present status. In truth, we are not altogether a "happy family," that is, not yet—although we hope to be some day. We have skeletons in our closet—the skeletons of envy, hatred and malice—and should use every effort to keep them locked up until they moulder into dust, and not allow them to escape and mingle in medico-historical or any other organizations. "Eternal vigilance is the price of" peace. H.

For the CHICAGO MEDICAL JOURNAL.

In the JOURNAL for May, "A Country Correspondent" indulges in a criticism of the valedictory address which was printed in the April No. That the address should elicit criticism is not surprising, for subjects are involved upon which the best intellects of the world are discordant. That some of the exceptions are not well taken will appear by a few citations.

The address should *not* "have commenced with the first paragraph on page 195," but with the first paragraph on page 193, for in this paragraph a simple fact is stated which was intended to be, and is applied in illustration in the last paragraph commencing on page 201. The analogy between the physical world and the intellectual, as sketched in the second paragraph on page 193, appears natural, and it is maintained throughout the address.

The reference to the allegory in the first paragraph on page 194, was introduced there, that the lesson which it was intended to teach might be applied with effect in the first paragraph on page 206. (All of which is legitimately a part of the address.)

It is asserted that the quotation from the Bible, on page 201, is introduced without "pausing to study patiently in the light of modern science." The real object in this part of the address was to bring the teachings of scientists and revelation into contact.

Time, as an element, modifying results in nature's laboratory, and applicable to this part of the subject, is recognized in the second paragraph on page 200, and again in the first paragraph on page 201.

The address should *not* end on page 203, as the reviewer intimates, though "enough had been said to arouse the attention of the graduating class," for then should be added some words to stimulate to, and encourage in, *personal* efforts in the work of progress.

Exception is taken to the use of certain terms, as, *e. g.*, "disease," "poison," "cure." The reviewer should know that these terms are used to-day by the scientific, and also that they convey definite meaning. In the distant future when improvement shall have furnished us with better terms to express the idea, they shall be marshalled into service.

In conclusion, it is hoped that the praise, so liberally awarded to the address, has better foundation than these points in the critique.

DE LASKIE MILLER.

926 Wabash Av.

Chicago Mortality Report for April, 1874.

MORTALITY IN MONTH OF APRIL, 1874.

Accident, by burns	3	Cancer of liver	1
" by being crushed	2	" of stomach	2
" by drowning	5	" of uterus	1
" by fall	1	Carbuncle	1
" by railroad	5	Chicken Pox	1
" by scalding	3	Cholera Infantum	1
" by street cars	1	Consumption	54
Apoplexy	2	Convulsions	58
Asthma	1	Croup	1
Atelectasis pul	1	Cyanosis	3
Brain, congestion of	3	Cystitis	1
" disease of	3	Debility, general	6
" inflammation of	7	Deficient development	1
" softening of	3	Diarrhœa	4
Bronchitis	8	Diphtheria	7
" capillary	4	Dropsy, general	6

Dysentery	4	Mortification, following amputation	1
Enteritis	22	Meningitis	10
Epilepsy	4	" cerebro spinal	7
Erysipelas	4	" tubercular	2
Fever, congestive	2	Metro Peritonitis	1
" intermittent	1	Old Age	12
" puerperal	11	Paralysis	3
" remittent	4	Parotitis	1
" scarlet	5	Peritonitis	1
" typhoid	11	Pneumonia	44
Gastritis	3	" typhoid	4
Gastro Enteritis	3	Pleurisy	1
Hemorrhage, puerperal	1	Pyæmia	1
Heart, disease of	4	Rheumatism	1
" organic disease of	1	" inflammatory	1
" rheumatism of	1	Septicæmia	1
" inflammation of	1	Small-Pox	17
" valvular disease of	9	Spine, disease of	1
Hip disease	1	Stomach, ulceration of	1
Hemiplegia	2	Suicide, cutting throat	1
Hernia, umbilical	1	" hanging	1
Hepatitis	2	" poison	2
Hydrophobia	1	" strychnine	2
Hydrocephalus	8	" shooting	3
Inanition	10	Syphilis	1
Kidneys, Bright's disease of	3	Tabes Mesenterica	10
Laryngitis	2	Teething	3
Larynismus, stridulous	1	Tetanus	2
Larynx, inflammation of	1	Trismus	1
Leucocythemia	1	Uterus, hemorrhage of	1
Lungs, abscess of	1	" degeneration of	1
" congestion of	10	Whooping Cough	7
" hemorrhage of	1		
Malformation	1	Total	482

Premature births, 5 ; Still births, 63. Total 68

COMPARISON.

Deaths in month of April, 1874	482
" " March, 1874	508
Decrease	26
Deaths in month of April, 1873	611
Decrease	129

AGES.

Under one year		144	Forty years to fifty		40
One year to two		39	Fifty " " sixty		28
Two years to three		16	Sixty " " seventy		26
Three " " four		14	Seventy " " eighty		18
Four " " five		14	Eighty " " ninety		5
Five " " ten		27	Ninety " " one hundred		1
Ten " " twenty		13			
Twenty " " thirty		50	Total		482
Thirty " " forty		47			
Colored	11		Males	245	
White	471		Females	237	
Total	482		Total	482	

Married, 172 ; Single, 310. Total 482

NATIVITIES.

Austria	2	Holland	1
Bohemia	3	Italy	1
Canada	1	Ireland	46
Native—Chicago	63	Norway	6
Foreign, "	151	Poland	3
United States, other parts	97	Scotland	1
Denmark	1	Sweden	6
England	15	Switzerland	4
France	2	Unknown	4
Germany	75	Total	482

Deaths daily, 16. Mean thermometer, 38.7°. Rain fall, 2.64 inches.

MORTALITY BY WARDS, ETC., APRIL, 1874.

Wards.	No. Deaths.	Pop. in 1872.	Percentage.
1	4	398	one death in
2	3	2,174	" " "
3	33	19,157	" " " 581
4	10	16,832	" " " 1,683
5	17	18,564	" " " 1,092
6	53	31,371	" " " 592
7	43	27,644	" " " 643
8	21	30,253	" " " 1,441
9	24	30,032	" " " 1,249
10	13	16,624	" " " 1,278
11	11	18,340	" " " 1,667
12	15	20 876	" " " 1,392
13	13	14,636	" " " 1,126
14	13	15,892	" " " 1,222
15	35	40,047	" " " 1,144
16	35	19,099	" " " 543
17	22	17,513	" " " 796
18	30	19,977	" " " 666
19	3	2,944	" " "
20	7	5,023	" " "
	405	Ratio of deaths to population in 1872, one death in 721.	

No. deaths in Wards	405	Mercy Hospital	4
Accidents	20	Police Station	1
Alexian Brothers Hospital	1	Small Pox Hospital	1
County Hospital	16	St. Luke's Hospital	2
Foundlings' Home	18	St. Joseph's "	2
Hahneman Hospital	1	Suicides	9
Home of Friendless	2	Total	482

CASES OF SMALL-POX REPORTED DURING APRIL, 1874.

Wards.	No. Cases.	Wards.	No. Cases.	Wards.	No. Cases.
1	1	8	3	15	11
2	--	9	4	16	9
3	--	10	1	17	15
4	--	11	4	18	6
5	--	12	--	19	--
6	5	13	--	20	--
7	4	14	--		

Total 63

Cases reported during April, 1874 63
" " " March, 1874 45
Increase 18

Cases reported during April, 1873 107
Decrease 107

Directory for the Month.

Every Monday. Lectures.—At Rush College, 9 to 1 o'clock.—Drs. Wadsworth, Bridge, Jackson and Parkes. At the Chicago College, 8 to 12 o'clock. Drs. Quine, Curtis and Roler. At Woman's Hospital College, 9 to 11 o'clock. Drs. Dyas and Fitch.

Clinics.—At Mercy Hospital, 3 P. M. Surgery.—Dr. Andrews. At the Central Dispensary, (239 W. Van Buren street), 3 P. M. Medical.—Dr. Bridge. At the Eye and Ear Infirmary, 2 P. M.—Dr. Holmes. At Hospital for Women and Children, 1.30 P. M. Gynæcological.—Dr. Thompson.

Mondays, May 4th and 18th.—Meeting of *Chicago Medical Society*, in the evening, at Gault House.

Mondays, May 11th and 25th.—Meeting *Chicago Association of Physicians and Surgeons*, in the evening, at Grand Pacific Hotel.

Every Tuesday. Lectures.—At Rush College, 9 to 1 o'clock.—Drs. Owens, Bridge, Adolphus and Parkes. At 4 P. M.—Dr. I. N. Danforth. At Chicago College, 8 to 12 o'clock.—Drs. Bond, Earle, Hutchinson and F. H. Davis. At Woman's Hospital College, 8 to 10 A. M.—Drs. McDonald and Bartlett.

Clinics.—At County Hospital, 2 P. M. Surgical.—Dr. Bogue. Medical.—Dr. Bevan. At Mercy Hospital, 3 P. M. Gynæcological.—Dr. Roler.

Tuesday, 19th inst.—Illinois State Medical Society. (Place announced by daily prints.)

Tuesday, 12th inst.—7.30 P. M., at 263 Wabash avenue, *Chicago Academy of Sciences.*

Every Wednesday. Lectures.—At Rush College, 9 to 1 o'clock.—Drs. Wadsworth, E. F. Ingals, Strong and Parkes. At Chicago College, 8 to 12 o'clock.—Drs. Stilliaus, Sherman, Nelson and Merriman. At Woman's Hospital College, 9 to 11 A. M.—Drs. Thompson and Fisher.

Clinics.—At County Hospital, 2 P. M. Gynæcological.—Dr. Quine, 3 P. M. Ophthalmological.—Dr. Hotz. At Mercy Hospital, 3 P. M. Ophthalmological.—Dr. S. J. Jones. At St. Luke's Hospital, 8 A. M. Surgical.—Dr. Owens. At Central Dispensary, 3 P. M.—Dr. Bridge.

Every Thursday. Lectures.—At Rush College, 9 to 1 o'clock.—Drs. Hyde, Bridge, Jackson and Case. At Chicago College, 8 to 12 o'clock.—Drs. Quine, Earle, Hutchinson and Haines. At Woman's Hospital College, 3 to 6 P. M. Drs. Paoli, Blake and Delafontaine.

Clinics.—At Mercy Hospital, 3 P. M. Medical.—Dr. Merriman. At Central Dispensary, 2 P. M. Gynæcological.—Dr. Adolphus. Diseases of Chest. Dr. E. F. Ingals. At Hospital for Women and Children, 1.30 P. M. Medical.—Dr. A. H. Foster.

Every Friday. Lectures—At Rush College, 9 to 1 o'clock.—Drs. Wadsworth, Hayes, Adolphus and Case. At 4 P. M.—Dr. Danforth.

Clinics.—At County Hospital, 2 P. M. Medical.—Dr. Bevan. Surgical.—Dr. Bogue. At Mercy Hospital, 3 P. M. Medical.—Dr. Nelson.

Every Saturday. Lectures.—At Rush College, 9 to 12 o'clock.—Drs. Owens, Hay and Strong. At Chicago College, 8 to 12 o'clock.—Drs. Bond, Jewell and Haines At Woman's Hospital College, 10 to 12 o'clock.—Drs. Curtis and McDonald.

Clinics.—At Rush College, 2 P. M. Surgery.—Dr. Gunn. 3 P. M. Diseases of Nervous System.—Dr. Hay.

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EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

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Original Communications.

ARTICLE I. — *Criminal Abortion.* A paper read before the Woodford County Medical Society at its Special Meeting in Eureka, on Tuesday, October 21st, 1873. By JAMES S. WHITMIRE, M.D., of Metamora, Ill.

Mr. President and Members of the Association:

Having been appointed at a previous session of this Society, to make a special report upon the subject of Criminal Abortion, I respectfully beg leave to submit the following.

Before entering upon my subject, I would remark that there seems to be a growing indisposition on the part of American females, married or unmarried, to bear children, and that when children are born, legitimate or illegitimate, they are, by a large proportion of our female population, considered more as a burden and an impediment to the pleasure and enjoyment of the hour, than as a great and lasting blessing, given to us in a bundle of rollicking humanity for our safe keeping and care, as a source of infinite pleasure and happiness.

Abortion may occur from a great variety of causes, among which may be reckoned, nervous excitability, plethora, blows or falls, great exertion and fatigue, sudden fright and other violent emotions of the mind; too sparing a diet, or a diet that is too nutritious, producing a full habit, or plethora; the abuse of alcoholic drinks, fevers of a low grade, exhausting hemorrhages, colic from accumulated fæces, immoderate venery, etc.

This accident is nearly or quite always preceded by flooding, pain in the back and loins, and it may occur without any obvious cause from some defect in the uterus, or in the fœtus itself, which we are not able to satisfactorily explain; hence, it will not unfrequently occur in the same female at a particular period of pregnancy, and may, perhaps, be kept up, from the influence of habit alone, when all the functions of the reproductive organs are in a perfectly normal condition.

These cases, however, are those of accidental abortion, which are of frequent occurrence in the practice of every medical man, and with which in this paper we have nothing to do, save a simple mention of the ordinary causes of this serious occurrence; serious, because there is nothing that befalls a female, in the course of her life, that is so likely to ruin her health, and consequently destroy her previously sweet and equable temper, depress her spirits, and render her morose and fretful; hence, it is too frequently the entering wedge to domestic infelicity.

But we have now to deal with criminal abortion, both in regard to its effects upon the moral and physical well-being of individuals and its disastrous consequences and demoralization of communities that are afflicted with this *non-infanto* mania. This special criminality is not confined to any particular class or condition in life: it belongs to, and is practiced by, the married and the unmarried; the rich and the poor; the learned and the unlearned: besides, even those who possess a respectable standing in the church, and are apparently, from all outward appearances, patrons of morality, are not exempt from the evil practice of producing abortion for the sole purpose of getting rid of responsibilities that may come to disturb their secular pleasures or to increase the family expenses. It is true that I am making broad assertions, and bringing grave charges against a large and hitherto respectable class of persons, that would startle the well-meaning, but innocent and uninitiated,

and cause them to lose faith in their kind, but it cannot be avoided; it is nevertheless true, whitewash it as you will.

As previously mentioned, our American women, especially, think more of the pleasures of the hour, and seem more willing and determined to devote themselves to them than they do to accomplish the holy destiny for which they were created, and to fill, with both pride and pleasure, the physiological condition of their being; hence, comes this criminality, this lax condition of public and private morals in regard to the bearing and rearing of children.

In this fast day and age we do not take time to think of the rebuke, which has become historical, that an old Roman matron gave to a foreign princess then on a visit to Rome. The young princess, among many other inquiries, asked the old lady about her jewels, and wished very much to see them. "With great pleasure I will show them to you," said the matron. Just at this moment the old lady's twelve sons entered the apartment, when the brave old lady, with supreme pride and pleasure depicted in every feature, turned to the princess and said, "These twelve noble boys are my jewels; they will be of service to the State." So, too, it was with our old Revolutionary mothers; when they had sent their husbands and sons to join Washington's army, they gave thanks to God every day that they had been permitted to bear and rear so many noble boys who were willing to defend their individual as well as the colonial rights. But things have greatly changed since then, and the physiological condition of gestation has come to be looked upon as a great burden and grievous to be borne; hence, the prevalence of criminal abortions.

Besides those females who produce abortion upon themselves, there are professional abortionists of both sexes in all our considerable cities, who, for a consideration, undertake to produce abortion in any case presented to them without asking any questions, and it is only when some of their unfortunate victims succumb under the operation, that inquiries are made, the guilty parties found out, and caught and punished according to their just deserts. But, notwithstanding this danger, this nefarious business is carried on to an alarming extent, and both women and men, knowing these things and the probable certainty of relief with but little immediate danger, are more disposed to be loose in their habits

and morals than they otherwise would be; because, with the unmarried, in cases of *accident*, they are enabled to get rid of their incumbrances, with but little or no risk of their shame being published, but, nevertheless, their own self-respect is greatly reduced, and their former confidence in and regard for the innocence and virtue of those of their own sex is completely destroyed; and so it continues; from a high-toned vice in the beginning, it subsides into profligacy, and from the latter, it very speedily descends into debauchery, where their days are numbered, and will soon be ended in the most destitute and wretched misery.

In regard to professional abortionists, some of them, both male and female, claim a membership in the profession of medicine, and do a very considerable, lucrative practice, but avarice is their besetting sin, and they have permitted the love of money to carry away their reason, conscience and common sense, so that, regardless of their once good morals, and instincts of their better nature, they have abandoned themselves to vice and become the worst enemies of society. But professional men and women, who are, in fact, educated and qualified in their calling, seldom or never engage in this crime against nature; they have too much professional pride to be bought with gold, or to be influenced by sympathy to be engaged in any such disreputable practices; besides, the moral standing of a professional man should be above reproach or even suspicion.

There are instances in which it may become a matter of serious consideration whether it is not best to produce abortion, or to even bring on premature labor, for the preservation of the mother's life, but this would be legitimate practice, and hence does not come within the scope of this paper. The professional abortionist, however, has nothing of this kind to consider. It is his business to get rid of the embryo or fœtus as the case may be, at all hazards, but the mother's life must be saved for fear of detection in his nefarious business; he and his business are generally known by the lewd of both sexes for miles around where they reside, and also, known to one another in the different cities, so that if a case is likely to be too close at home for complete safety to all parties, the victim is sent to the next bloody station where the operation is performed, and a reciprocity of iniquity is kept up. If a case should at any time prove fatal, as a safety measure, lest the crime

be tracked to its hole, the body is mangled and dismembered so that it cannot be recognized, boxed up and sent by rail or on ship-board to some distant point where all trace of the perpetrators of the crime is lost. Occasionally, however, through our detective system, the animal is hunted down, and that justice meted out to him which should follow the perpetration of any crime. Persons who engage in this crime, whether they are professional or self-abortionists, have lost all the natural instincts of humanity; they have neither principle nor good morals, and are, hence, an eye-sore to society, a plague-spot upon communities where they exist—lepers, whose infectious breath undermines the very foundation of the morals of the people, and should not be tolerated for a single day, when and where they are known.

The manufacturer, advertiser and even the vender of *Professor Bombasticus' Female Pills*, should be held to a strict accountability for any injury produced by the nostrums they manufacture or vend, because the very tone of their advertisements is intended to call attention to the abortive quality of their drugs. For instance the advertisements run in this way:

FOR SALE.—Professor Bombasticus' FEMALE Pills. They correct all irregularities of females, purge the blood of all impurities, and restore the secretions, whatever the causes of their obstruction.

N. B. Ladies in an interesting situation should avoid them.

Now, the latter N. B. portion of the advertisement is the very point that they wish noticed; it is that which gives to these pills their only notoriety and makes them salable as an abortive remedy, and gives to the self-abortionist her only inducement to purchase them.

The immediate effect of these pills is a violent drastic catharsis; they may, during their disturbance of the system, from their drastic qualities, bring on abortion or premature labor which may be accomplished just as certainly by any of the drastic cathartics, or any other cause that produces a functional disturbance of the general organism. These pills not only depress the vital forces of the general system by their violent action, but they are apt to leave all the functions of the organism in a pathological condition. There is no less criminality, neither is there less responsibility in the act of producing abortion by one's own hand, or by means

that are self-devised, in order to escape responsibilities of one kind or another, than there is to those who make the business of producing abortion a matter of merchandise for the accomplishment of sordid ends; and, in either case, the moral sensibilities, and obligations of the individual to society seem to be so blunted as to make them really dangerous members of society, not, probably, from any overt act, or misdemeanor that will be perpetrated by them, but from the corrupt influences that are apt to follow in the wake of such criminals and their crimes; therefore, when either of these classes are overtaken in their iniquity, an example should be at once made of them for the benefit of those who come after them.

When it is known that it is always necessary to use means, more or less violent in their action, to produce abortion, it would be an easy matter to perceive the disastrous constitutional consequences produced upon the habitual self-abortionist. You see her *tottering*, not walking—pale, discouraged, sallow and languid—along your streets; she has prolapsus uteri, probably displacement of the os uteri; her sexual organs are in a flaccid condition; she has profuse leucorrhœa; is afflicted with menorrhagia at her menstrual periods; in short, her health is virtually gone, broken down by those violent means used either by herself or others for the purpose of producing abortion.

And now, in regard to those *female* pills, so extensively advertised, the man who makes and he who vends them should be held criminally liable, by the law, for any damages from abortion or otherwise, that they may produce. Though there is now a law upon our statute books making it penal, or at least a misdemeanor for any druggist, or apothecary, to retail medicines that have the reputation of producing abortion, yet you may step into any country or city drug store in the State of Illinois, and procure, without the prescription of a physician, any one or all of these reputed abortion-producing medicines, not excepting ergot, bark of the root of the cotton-plant, oil of savin, or even the celebrated and never-failing Bombasticus' *female* pills, none of which are called for by individuals who do not belong to the medical profession, without there is intended mischief ahead.

When abortion occurs, even, without the use of these violent drugs, it is very wearing on the naturally delicate female organism,

but if it is produced by violence, even though the operation be performed by the most skillful hand and by the most approved method, the consequences may be none the less hazardous. And when it is produced by an ignoramus or bungler, it is positively dangerous, the woman's life is immediately jeopardized, and her health and usefulness are more than likely to be ruined. All these consequences may not immediately follow, nor be at once apparent, but *time*, that develops all things, will certainly tell the sad story of premature decay, and finally, death, the destroyer of all organisms, will make its certain approach.

The reason for these inevitable results is patent enough to those who are acquainted with the laws that govern the life and health of the animal economy. Gestation being a physiological condition, what woman could possibly be in a healthier state than when she is performing one of the greatest and noblest physiological functions of her being? Abortion, from whatever cause produced, is a pathological condition, and its results are pathological, whether they be present or remote, and hence, nothing but constitutional infirmities and premature decay must and will as inevitably follow this condition as any other effect will certainly follow its philosophical cause.

At this moment I can recall to memory many females, who, I have reason to believe, short of absolute knowledge, have, frequently and again, produced abortion upon themselves, sometimes by violent purgation, lifting, jumping, and even with a stiletto, blunt probe, or uterine sound, either of which they have learned to use by reading obscene books published expressly to impart such information. In such cases, if there was but little hemorrhage they would take the chances, and get through in the best manner they could, but if danger occurred on that account, or extraordinary delay, the family physician was called in to complete the job, and the woman in her great simplicity and extreme innocence would tell him of an accidental fall, a hard day's work, or some extraordinary excitement, or other cause for the accident, but the case now being past remedy, his only and sole duty is to remove the embryo or fœtus as soon as practicable and stop the wasting of the crimson current of the precious life.

This is not an isolated case of this kind; such cases exist, everywhere; they are of frequent occurrence in every village and

neighborhood. This iniquity is not confined wholly to our populous cities, but is practiced all over our country to an alarming extent, and even the rural districts are not exempt from this criminal practice. Many, indeed, argue, that the practice is not, in fact, criminal, because, they argue, that the child is not viable until the seventh month of gestation, hence there is no destruction of life. The truly professional man's morals, however, are not of that easy caste, because he sees in the germ the probable embryo, in the embryo the rudimentary fœtus, and in that, the seven months viable child and the prospective living, moving, breathing man or woman, as the case may be.

This iniquitous profligacy of human life and prevalent violation of the laws of our being is one great cause and reason for so few native-born children of American parents, according to the number of young married people, and in comparison with those of other nationalities among us. This, too, accounts for so few household gods, to be worshiped by American parents, that would make home happy and overflowing with joy and gladness. This, too, is one of the many reasons why we are fast losing our national characteristics, and slowly merging into those of our foreign population, who, according to the United States statistics of 1870, are rearing fifty per cent. more children according to their number than Americans are doing.

This being the case, I would ask, is it not high time to strike at the evil, wherever and under whatever circumstances it may be found? It seems to me, as an individual, and laying aside the moral bearings of this subject, that the loss of our national characteristics by the gradual merging into those of other peoples of foreign nationalities, of itself would be and will eventually prove a great calamity, and we may well fear and tremble for the future of our country.

The criminality of this thing attaches in two particulars: First, the destruction of human life, and secondly, by destroying the health and vigor of our women, and incapacitating their powers of reproduction, shortening their lives and rendering them incapable of bearing strong, vigorous and healthy children; and certain degeneracy of our race would long since have occurred, had it not been for the continued admixture of our native Puritan and Huguenot blood with that of the strong, robust and healthy foreign

element, the individuals of which are making happy and frugal homes among us. Criminality, therefore, attaches not alone to the professional abortionist, but to the self-abortionist as well; and no less criminal is the druggist who sells and the manufacturer who puts up nostrums to be thrown upon the market, with abortion as their salient point to direct attention.

These are all facts, and the conclusions inevitable and incontrovertible; this is known to every professional man, but what are we to do? Is the evil beyond our reach? Certainly the whole of the evil we cannot avert, but we may add our mite and put forth our hand to stay this monster iniquity. This is not the work of the medical profession alone, but the church, the bar, our law-makers, and all good men and women, should engage in it for the benefit of public morals, for the preservation of our national characteristics, and the general well-being of our people. It is a labor of love that we owe to ourselves, to society, and more especially to the opposite sex; and no less to the health and general well-being of mankind.

ARTICLE II. — *Impermeable Urethral Stricture.* By OSCAR C. DEWOLF, M.D., of Chicago.

Prof. Syme announced his belief, twenty-five years ago, that all urethral strictures were permeable to the passage of a suitable and well directed sound, yet he felt obliged to make the confession that he occasionally met cases in which he was unable to pass an instrument of the smallest size from the external meatus to the bladder, *by means of manipulation only.* "On several occasions I have found it necessary to open the urethra anterior to the stricture so as to obtain the assistance of a finger placed in the canal to guide the point of the instrument."

The proposition is *not* that every urethral stricture can be passed by suitable instruments, for whenever the point of the sound is engaged in the constriction, and cannot be advanced without danger of piercing the canal, an incision may be made (external urethrotomy) so as to obtain the assistance of the eye

and the finger placed in the canal, to guide the point of the instrument—and if one incision is made, it may be repeated whenever and wherever the point of the instrument is obstructed—but the question practically and honestly stated is this, are all urethral strictures permeable by a well selected instrument passed by manipulation from the external meatus towards the bladder? To this proposition there is but one answer. No.

What to do—and how to do it—with these cases, in which urinal retention may sometimes demand immediate relief, are questions which may embarrass the most skillful surgeon, and always alarm the younger and inexperienced practitioner.

I think they may be practically considered as of two classes, in both of which the urethra is absolutely impermeable to instruments of every description.

1. Those cases, chronic in their nature, in which there has been for a considerable time (perhaps for years) a persistently increasing and progressive thickening of the urethral walls, until the urine can only be extruded guttalim, or in a small dribble, the bladder thickened and contracted by the constant and violent action of its muscular coat, and the normal tissues of the perineum greatly indurated and perhaps traversed by sinuses and fistulæ. The following case is a fair type of this class, and also illustrates a physiological fact worthy of record.

Mr. P., æt. 55 years, farmer, of good general health, was injured stepping from his wagon by striking the perineum against the sharp edge of the iron rim of the wheel.

The urethra was not lacerated, and though there was slight retention for a few days he was very soon able to pass his water and resume his work. The urethra slowly but progressively narrowed, and after a time unavailing attempts were made to pass an instrument. In September, 1870, eight years subsequent to injury, he asked my attention. His condition was indeed pitiable. There had never been complete retention of urine save for a few days immediately following the injury, and yet he was now employed one-quarter of his time, night and day, in passing his water. He was emaciated and worn out. The walls of the bladder were thickened and contracted, and the perineum bulging and hard as cartilage. While attending to his general condition I gained time to attempt the introduction of an instrument.

After two weeks trial, in which nothing could possibly be passed beyond the peno-scrotal angle, I decided to open a passage with a bistoury to the bladder, and I can truly say that it was a difficult and trying operation.

Assisted by my friends, Drs. Fisk, Knowlton and Bonny, the patient was suitably placed, secured, and brought under the anæsthetic influence of sulph. æther. A silver catheter of full size was carried down to the obstruction and its point exposed by an external incision; the point was now turned out of the wound, and the short curved beak of the instrument used as a hook to steady the parts. Prolonged and fruitless effort was made to follow the tortuous and sinuous urethra, point by point, with a probe in extending the incision, but the induration and depth of the part, the very irregular and minute canal, and the difficulty of controlling the movement of the patient, rendered this impossible; finally, by an incision in the mesial line passing directly through the bulb, and with no attempt to find or follow the urethral canal, the indurated mass was divided back to the membranous urethra and the No. 12 catheter passed into the bladder. The wound (fully four inches deep) was packed with lint and the catheter tied in. With large doses of sulph. quinine and an occasional anodyne, the case progressed without a single annoyance. The bladder was washed twice a day with tepid water and the catheter retained in position ten days. It was readily introduced every day subsequent, by keeping the point well up against the upper surface of the new urethra.

In thirty days Mr. P. was about his house, the wound had entirely closed, and he was cautioned to pass a full sized sound once a week for a year. In a letter dated October 13th, 1873, three years after the operation, he reports: "My general health is good, the bladder retains the water as well as before my injury, and the water passes in a full stream. I have used no instrument for the last eighteen months."

It may be assumed, therefore, that whenever it is found impossible to "accurately and unswervingly" follow the track of the strictured urethra, the catheter may be placed in a new track and a new urethra will form about it, which in every way functionally performs the same duty as the normal one.

Mr. Wheelhouse, of Leeds (*British Medical Journal*, Feb. 10, 1870), suggests, that after the urethra is opened, just anterior to

the stricture, and the short and sharply curved beak of the catheter, or sound, turned out of the cut so that the instrument may be used to draw forward, fix, and steady the urethra, that each lip of the opening, including the mucous membrane, should be seized with artery forceps, or a piece of thread passed through each side, with which to draw open and expose the canal.

I have found this suggestion of much service in attempting to follow the urethra with a fine probe. While the operation, under some circumstances, may be regarded as amongst the most difficult in the whole range of surgery, there seems to be no substitute to offer, unless the patient is to be allowed to continue his miserable existence to the end without aid, for though the bladder be reached, and its flow temporarily diverted, through the rectum or over the pubes (and in many cases this is impossible from its contracted and thickened condition), the urethral condition will not amend, but remains as stubbornly occluded as before.

The danger of hemorrhage attending or following the operation need not alarm, though it should be carefully watched for and immediately checked if it occur. If the mesial line of the perineum be accurately followed in making the incision, that "bete noir" of urethral surgery—the bulb—may be forgotten or ignored. It will be remembered that the operation here referred to differs from that known as "Syme's operation for perineal section," in this, that Mr. Syme directed that a sound of some kind should be carried through the stricture into the bladder, and upon which the surgeon was to cut from without, while in the cases considered, no instrument can be passed. It is sufficient to say of Syme's operation, that the best recent authorities regard it with disfavor, as unnecessary, for whenever an instrument can be introduced through a stricture it can be treated by other and safer means.

2. In the second class of cases the retention of urine is generally complete, and the services of the surgeon are requested to relieve a distended bladder. The urethral narrowing has not, to a certain time, been sufficient to occlude the canal, but from a variety of causes, as the violent distention of the urethra behind the stricture by the efforts of the bladder to expel its contents, cold, a debauch, instrumental attempts to enter the bladder, etc., a hyperæmic and swollen condition of the urethral tissue at, or just posterior to, the stricture has been produced, and which acts as the immediate cause of retention. A recognition of this superimposed inflam-

matory state is important as a guide to treatment, which should comprise the two-fold object, the immediate one of relieving the bladder, and the more remote, the removal of the cause of retention by restoring the urethra to its normal condition.

Though the canal has become absolutely impermeable to instruments, yet if we are able to divert the flow of urine to another channel for a few days, and thus give the irritable and diseased urethra physiological rest—the natural means of restoration—we may in all probability succeed in passing a sound, and be able to treat the case successfully as one of simple stricture. Puncture of the bladder through the rectum, or over the pubes, is very especially applicable in these cases.

In the "Transactions of the Medico-Chirurgical Society of London, 1868," there is a paper by Mr. Cock, Senior Surgeon to Guy's Hospital, detailing his experience in forty cases of puncture of the bladder through the rectum, in which he says, "this operation is safe, easy of accomplishment, and without danger as to its consequences, and in cases of retention which resist ordinary treatment it is greatly to be preferred to long continued attempts at catheterism."

While I have never found great difficulty in securing the canula in the bladder—and even if it escape, the orifice is immediately closed by the muscular coat and the operation may be repeated—nor have I ever seen in my own practice any other than good result from this operation—yet I prefer the hypogastric puncture, and particularly so since the capillary aspirator has been suggested, and so successfully used for this purpose. Mr. Watelet assures us that the operation may be done three or four times a day, and is "absolutely devoid of danger."

Dr. James I. Little also records (*New York Medical Journal*, Nov., 1872,) a case of retention of urine, in which he punctured the bladder fourteen times above the pubes, until a catheter could be introduced by the urethra; "no tenderness followed the punctures, and in a few days all trace of them had disappeared." Dr. L. suggests that the punctures should be made on or near the median line, about one inch above the pubes, and when necessary to repeat should be made each time in a different place, about a line apart.

441 West Washington St.

Progress in Medical Sciences.

ARTICLE I.—*Progress of Syphilology and Dermatology.* By JAMES NEVINS HYDE, M.D., Lecturer on Dermatology and Syphilis, Rush Medical College, Chicago.

1. On the Affections of Syphilis which tend to a Fatal Termination. BROUARDEL. (*La Gazette des Hopitaux*, April 14, 1874.)

2. On the Non-infecting Cephalic Chancre. Prof. J. PROFETA, with note by P. DIDAY. (*Annales de Dermatol. et de Syphilig.*, T. s. No. 3.)

3. On Syphilitic Angina. BUCQUOY. (*La France Medicale*, April 1, 1874.)

4. On Palmar and Plantar Syphilides, with especial reference to their study in Hereditary Syphilis. (*Madier-Champvermeil*, Paris, 1874.)

5. On Parasitic Melanodermia. FABRE. (*Le Progres Medical*, February 4, 1874.

6. On Buboes of the Inguinal Region. AUSKITZ. (*Amer. Jour. of Syph. and Derm.*, April, 1874.)

1. All syphilitic patients are not equally liable to the visceral disorders which ordinarily produce death. Certain classes of these seem especially predisposed to such complications, while others appear to be exempt.

The graver forms of syphilis occur when the precedent chancre has been misunderstood or undiscovered, when the sore has been purposely concealed from the attending physician, and when the first evidences of constitutional disease have failed to receive due attention—in short, the absence of treatment is productive of relative gravity of the disease.

Primitive sores, and so-called primary syphilis, rarely terminate fatally. Phagedena, ordinarily complicating non-infecting sores, is also established in some instances of syphilitic chancre, but terminates favorably in a large majority of cases.

It has been concluded that chancres contracted without coitus (vaginal touch of the practitioner, uncleansed instruments, etc.) require a more serious prognosis than others. But the determining causes in such instances are not different from those which obtain elsewhere. They are: misconstrued or neglected primary sore, and

tardy treatment. Localized epidemics of syphilis, terrible in their gravity, illustrate this point. They originate in vaccinal syphilis, whose first phenomena are misunderstood and untreated.

In so-called secondary syphilis, M. Dubuc describes "malignant precocious syphilides." They become rapidly papular (rather than roseolous), and develop an embryonic cellular tissue, which, instead of becoming organized, rapidly degenerates. From this metamorphosis, of what Lancereaux terms "still born" tissue, ulceration, with deferred cicatrization, results. These cases are rapidly followed by grave complications and the development of embryonic tissue in the viscera. Iritis, single and double, is then frequent, and, what is worthy of note, the severe pain and photophobia of other patients is here wanting.

Precocious malignant syphilides are developed in the aged, the scrofulous, and those enfeebled by diathetic disorders. It was Ricord, who, observing the desperate tenacity, singular career and great gravity of one class of these complications, declared that there was a "scrofulate of pox."

Maladies complicating syphilis, are subject to a reciprocal influence, and are characterized by an irregular career, and inaptitude for relief, while they require indefinite treatment. Disorders of the lung, for example, in syphilitic patients, simulate tuberculosis. Gobler has relieved a certain proportion of these grave disorders with specific treatment; but it is impossible to generalize where lesions are so little understood, and so undistinguishable in the cadaver from those of non-specific disorders.

It is well known that the third period of syphilis is that of the greatest fatality. The characteristic of this period is the production of the gummata—neoplasms of embryonic tissue—which, unlike tubercle, are vascular, and therefore of superior vitality. Gummata belong to the cellular tissue, and determine in their vicinity diffuse inflammation and lesions of neighboring organs. When located in the subcutaneous cellular tissue, ulceration extends to the surface, and pus escapes, or a liquid resembling a solution of gum, which has given origin to the name. But the subcutaneous and sub-periosteal gummata do not endanger life—it is they which are located in organs essential to life—tertiary syphilides of the brain, respiratory passages, meninges, medulla, liver and cardiac muscle—which need to be considered. The

groups which are of special importance, are those of the brain, respiratory passages and nervous centres.

(A.) *Lesions of the Central Nervous System.*—This division may be made to include disorders of the cranial and pericranial tissues, the meninges, the encephalic vessels, and the brain and spinal marrow. Periostoses of the cranial vault, rare upon the external table, are frequent on the internal face of the skull. The seat of predilection is the vicinity of the sella turcica, the basilar apophysis, and the base of the brain generally. Gummy tumors frequently result from these neoplasms—called by Virchow "gummy periostites." They contain the " dead bone " product of Lancereaux, and are prompt to disappear and leave depressions in the bony substance. Complete osseous perforation is more readily effected if the primitive lesion be located in the dura-mater.

Pachymeningitis occurs spontaneously with, or consecutive to, gummata. Virchow describes the diffuse gummata of the arachnoid as " gummy pachymeningites." Obliteration of the carotid at the level of the sylvian artery, and of the basilar trunk, has occurred from compression induced by an inflamed arachnoid. Virchow has also noted thrombosis, with obliteration of one lateral sinus. These disorders may produce all the symptoms of general paralysis.

As regards the vessels, syphilitic endarteritis and consecutive obliteration may occur. (Broadbent notes one fatal case.) Generally, however, the etiological conditions of endarteritis obtain in these cases—age and alcoholism.

The encephalon exhibits gummy tumors of poorly defined limits and diffuse periphery—isolated and self-limited when ancient or in full retrogression. These are genuine gummy inflammations, developing at the expense of the brain substance, and lie upon the convolutions, the crura, or the pons varolii. (Herard narrates cases of central lesion). Potain, Wagner, MacMowel, Charcot and Gombauld describe similar phenomena in the envelopes and substance of the spinal medulla.

Violent nocturnal cephalalgia, disappearing by day, and inducing insomnia, vertigo and vomiting, is common to all syphilitic periods, but the tertiary forms are obstinate, and persist through the day. The vomiting resembles that of meningitis; it is regurgitant and not accompanied by nausea. Exostoses and periostoses fre-

quently co-exist. The iodide of potassium is not alone sufficient for a cure, but recourse must be had to mercury.

Most paralyses of the oculo-motorius are notably *not* dependent upon osteal or periosteal lesion, as they are consecutive to secondary accidents. Deafness may result from mucous patches of the eustachian tube. (Ricord.) Sudden and incomplete hemiplegia may result from a true apoplexy—inflammation having been developed from a gummy periostitis. Vascular obliteration from clot or circumferential meningitis, may produce slow or rapid softening from loss of blood supply.

Epileptiform seizures are less complete and more localized when syphilitic, than when uncomplicated. There is, in general, no *aura* nor alternate pallor and suffusion of the countenance.

(B.) *The Liver.*—Interstitial hepatitis and gummy tumors of the liver strangle the active agents of nutrition, and produce atrophy and amyloid degeneration of the entire gland. Vascular obliteration, here, begets ascites, and obliteration of the biliary ducts, icterus. In the examination of suspected cases, the volume of the liver will be found to vary within large limits. Projections, depressions, and lobar division, are frequent. (Riegel cites a case where one lobe seemed to float like a tumor in the right iliac region.) When the liver extends beyond the false ribs, it is difficult to cause the peritoneum to glide smoothly over its surface.

Syphilitic ascites is variable—reappearing and disappearing. It is, therefore, more curable in extreme cases than other forms. Icterus presents the same feature, and may produce almost a black discoloration of surface. Hæmorrhage from the stomach, bowels and nose may co-exist, and induce diagnostic errors.

(C.) Laryngeal œdema may originate in mucous patches of the vocal cords or adjacent membrane. (Cusco remarks that papulo-squamous syphilides select the larynx by preference.) Then may result, ulcers invading the trachea, aphonia from cord destruction or ulceration, and stenosis. (For an excellent review of the subject of syphilitic laryngeal stenosis, see article of Prof. Elsberg, an abstract of which appeared in the Progress, of this department of the JOURNAL, for May.)

2. Ricord, Cullerier, Langlebert and Galligo state that they have never observed non-infecting chancres in the cephalic region.

Others have admitted the possibility of their artificial production, but equally denied the fact of their clinical existence. To the experimental inoculation of Bossereau, Diday, Bennet, Rollet, Robert, Puche, and Buzenet, and the clinical observations of Devergie, Clerc, Fournier and others, Profeta adds three cases of interest.

In the first, that of an Italian musician, there existed on the right commissure of the lips, and the cheek and forehead of the same side, a vast chancre, produced by inoculation from a similar sore upon the right index, of irregular form, engorged but non-indurated base, overspread with crests and depressions, and covered with a yellowish, pultaceous, organic detritus. Its borders were well defined, but concealed fistulous tracts. In brief, it was a huge, serpiginous, perforating, phagedenic chancre. There was no trace of constitutional syphilis nor of adenopathy. (Ricord denominates the engorgement of the lymphatic ganglia the "syphilitic pulse.") A vesico-papular eruption, covered with crusts, extended over the trunk and limbs, evidently caused solely by the *acarus scabiei*, whose presence was detected. Profeta *inoculated himself* with the pus of this cephalic ulcer, and produced a soft chancre on his person, which was recognized by Colomioti, Meredyth, of London; Thiry, of Brussells; Kuss, of Strasbourg, and Pellizari, of Florence.*

The second case is that of a barber, who opened with his razor a suppurating inguinal bubo, symptomatic of multiple soft chancres, wounded his finger, and sucked the digital wound, which was covered with pus from the groin. He thereby inoculated a scratch upon the middle of his upper lip, and there resulted a large painful chancre of the index, secreting a sanguinolent pus, having clean cut edges, a greyish floor, and a reddish areola. Axillary adenopathy of inflammatory type followed. Both the upper and under

* When it is remembered that Profeta was a pupil of Pellizari, his courageous self-inoculation can readily be understood. He and his master are both ardent advocates of the dualistic doctrines on syphilis, and, as can be seen, they give practical evidence of their convictions. It was another pupil of Pellizari, viz., Bargioni, who first demonstrated the inoculability and infectiousness of syphilitic blood in his own person. That experiment is considered decisive by all authorities, since Bargioni, in accordance with his expectations and in consequence of his inoculation, suffered from constitutional disease.

lips soon presented similar sores, without, however, lymphatic engorgement in the neighborhood.

The third patient had a very extensive non-infecting chancre of the penis, with gangrenous complication. There was also a consecutive sore upon the scrotum, and the right ala of the nose was entirely covered with a clean-cut, non-infecting sore, of a livid areola and a gangrenous aspect. The patient had had a pruriginous affection of the nostril, which he frequently scratched, and complete inattention to cleanliness had resulted in infection. The nasal sore was soon surrounded with numerous smaller and similar lesions, which rapidly united, to form an enormous phagedenic facial chancre.

Diday appends the following conclusion:

It is clear that the chancrous virus (the pus of a soft chancre) can be inoculated upon the face, just as in other regions. But is this easy of accomplishment? If the relatively small number of cephalic chancres be considered, in connection with the fact that the application of a contagious pus upon a sub-epidemic surface has been in each case necessary, it may be concluded that contagion, in order to produce a facial ulcer, requires something more than is requisite for a similar effect upon the genitals. All the facial sores described above were of phagedenic type. Would it be exceeding the limits of legitimate deduction to conclude from this circumstance, that there existed in each case an exceptional predisposition to the ulcerative process, and that on this condition only was the contagion of the chancroid ulcer possible of production upon the face?

3. A shoemaker, thirty years of age, of robust constitution and with every appearance of good health, was admitted to the Hopital Cochin, Feb. 23, 1874, for sore throat, from which he had suffered for five or six weeks. Examination disclosed on the left side an extensive irregular ulceration, with clean-cut edges, involving the superior portion of the anterior pillar of the fauces, the adjacent tonsil and the left border of the velum and uvula. This vast ulcer had a grayish base, a periphery of brilliant red color, and a swollen, angry-looking areola. The uvula, increased to twice its normal size, rested inactive upon the base of the tongue. Similar lesions were noted deeper in the pharynx upon its posterior wall, which was, to a great extent, covered with irregular deep

excavations, smeared with a grayish and adherent secretion. The laryngoscope brought to light every feature of these enormous ulcers, which extended upward and downward as far as the eye could penetrate. Below, they appeared to be limited by the rim of the larynx. The latter was somewhat reddened, but the epiglottis and vocal cords exhibited no alteration. The nasal fossæ presented lesions of a color similar to that seen in the larynx. There was no maxillary adenopathy. The voice was unaltered, the odor of the breath occasionally fetid. Pain existed only in deglutition. There was some ear-ache of the left side, but no deafness.

Antecedents: At eighteen years of age an indurated chancre appeared upon the prepuce; treated in hospital for one month. Two years afterward he was treated in hospital for left iritis during another month. Inequality of pupil movement remained. Somewhat later, lesions of the throat appeared, similar to those of the present date. Eighteen months afterward, a pustule on the left shoulder left a large white stellate cicatrix; a smaller cicatrix was found upon the left leg. Ecthyma, and possibly rupia, had evidently existed. Fifteen months before, an abscess had burst into the buccal cavity, near the upper canine tooth.

This latter affection had begun with an insignificant ulceration, which had broadened and deepened, and in less than one month attained its present dimensions. The patient experienced frequent nocturnal headaches, but had no periostitis. No regular course of treatment had been pursued. There was room for some suspicion of the coexistence of scrofula. The patient had had sore eyes since he was four years old, but never suffered during infancy from ganglionic enlargement.

There are but two chronic disorders which are capable of producing these lesions. They are scrofula and syphilis. The signs of the latter are distinct in the case related, though scrofulous antecedents are not wanting.

Primitive, secondary and tertiary lesions of the throat are all definite and different. Chancres from *coitus ab ore*, and unclean instruments, (aurists', especially,) are indolent, superficial, painful, indurated, and accompanied by non-suppurative adenopathy.

The tonsils, says Fournier, are veritable nests for syphilides. Here also roseola and erythema are discoverable, allied to their

congeners upon the skin. Mucous patches, however, preceded by slight erosion, are the commoner lesions. They are small, flattened, slightly granulating elevations, ashy-gray or opaline in color, sometimes extensive and sometimes involving the salmucous derma.

Tertiary syphilitic throat affections are always ulcerative, either *ab origine* or consecutive to gummata. Of the former class are the deep red ulcers upon the tonsils, velum and pharynx, having a damask colored and swollen areola, a grayish base, and sharply defined borders. Painful or not, they interfere with deglutition, and produce a guttural voice. The odor of the breath is fetid, a puriform mucus is expectorated. They may perforate periosteum and bone, injure the vascular tissues to an extent requiring ligature of the carotid, involve the eustachian tube, and produce excruciating ear-ache, or penetrate to the larynx and finally necessitate tracheotomy. Of the latter class are the little tumors of the velum, at first hardly sensible, which eventuate in redness, swelling, softening and disintegration of the gumma in an icherous pus. The resulting ulcers do not differ from those described above. In the case whose details are cited, there was evidently a serpiginous tertiary ulcer, whose gummy origin could not be positively affirmed.

Malignant scrofulous angina equally produces profound and destructive ulceration. These lesions, however, display irregular and sinuous edges, their floors are indolent and memelonnated. A dirty, yellowish tissue is found beneath the muco-purulent secretion which covers them. They originate in follicular enlargements, colored like lees of urine, (Paul) or appear like white prominences (Bozin, Lailler, Isambert). According to some they respect the tonsils and larynx. Relatively rare, they are, however, often distinguished with great difficulty from the lesions of syphilis.

4. The limits of this article forbid the presentation of extended extracts from this admirable monograph. We have space merely for the briefest reference to the ideas of the author. He combats the generally received opinion that pemphigus and squamous syphilides are the sole manifestations of syphilis upon the palmar and plantar regions.

These lesions, he advances, should be considered merely as

accessory elements—epiphenomena—complicating and masking other pathological conditions. These other pathological conditions are those found elsewhere upon the integument of syphilitic patients. In the case of an adult who does not labor with the hands nor make excessive use of the feet, the palmar and plantar epidermis is thicker than in any other region of the body. Now the degree of this thickness bears a constant ratio to the repetition and intensity of pressure and friction upon these surfaces. If to this be added the pathological irritation of the syphilitic virus, there is excessive production of epidermis; and squamæ result. In the case of an artisan with callous hands, the latter element will more surely predominate and conceal from observation the deep lesions of the integument.

If the hand of an infant affected with hereditary syphilis be attentively examined, it will be found entirely virgin in respect to normal epidermic accumulations.* Here, however, the slightest shade of erythema, the most diverse forms of papules can be distinguished, precisely as upon other surfaces where there is no tendency to epithelial accumulation.

The squamæ, therefore, are to be regarded as complications; and the classification of the syphilides of the palm and sole should not differ, except in minor points, from that of the other phenomena of the disease.

This is the key note of the treatise. We append, in conclusion, the author's novel classification of general syphilides:

* The relative thickness of the epidermis in the unused hand of the infant and the adult, has not yet, so far as we know, been accurately determined. It is probable that the apparent excess of epidermal tissue in the palmar and plantar regions which have not been subjected to friction, is occasioned by the elevation of this component of the cutis by the dermal papillæ. In these localities the latter are not only large but numerous, and if a very dense epidermis were superimposed, the inequalities of the surface would be eradicated. Every one knows that this is not the case, but, like the "hills and valleys" of Rindfleisch, the surface is seamed with innumerable ridges.

The exquisite beauty of the rosy-pink tint in an infant's palm, is undoubtedly due to the approach of the vascular currents to the surface, in consequence of the delicacy of the epithelium. It is a peculiarity which rapidly disappears when the hand is once brought into use. Wilson estimated the epithelium of the palm of an adult hand, not exposed to manual labor, to be one-fourth of a line in thickness.

I.

Hyperæmic Syphilides.

Circumscribed: Roseola of adults—acquired syphilis.

Diffuse: { Erythema of adults. / Erythema of infants—hereditary syphilis.

II.

Neoplastic Syphilides.

a. Simple: { Circumscribed. / Diffuse. } { Papule. / Tubercle. / Psoriasis of adults. / Erythema squamosum of infants. } { *Complications* { Squamous. / Horny. / Humid. / Ulcerative. { Ulcero-squamous. / Rupia. } } }

b. Pustular: { Seniform. / Pitted. / Ecthymatous. } Horny. / Squamous.

c. Vesico-Bulbous: { Syphilitic Herpes. / Bulbous Erythema of infants. / Pemphigus. }

d. Ulcerative: { Superficial. / Deep. } Ulcerative Erythema. / Gummata.

5. It is difficult not to recognize a connection of causality between phthisiasis and melanodermicæ in the seven cases reported by Fabre. There is, in these disorders, a sepia-brown discoloration of the epidermis, much more intense where the parts are concealed by clothing and protected from friction. The head, hands, feet and neck are most often exempt, or less darkly tinted. The fœdo of the articulations are not generally more discolored than other parts, and the mucous membranes are generally unaffected. While the skin seems dry and rugous, the perspiratory function is illy performed. The affection attacks those in good health, as as well as those enfeebled by age, privation, excess or other disorders.

The author endeavors to maintain that the so-called cachectic melanodermia of Boucher, Gillet and Ponchet, is really of parasitic origin. Certainly, if the cachexia be the *predisposing* cause of this malady, it would seem to be clear that the parasite is the *exciting* cause. This once removed, the pigmentation commences to disappear. The Germans have called the affection "Pseudo bronze-disease," and the "Vagrant's malady." M. Ball (Dict. Encyclop., T. xi) declares that there is danger of a mistaken diagnosis, in view of the profound physical depression which usually coexists,

and which, in many points, resembles the asthenia produced by Addison's disease.

6. The name of Heinrich Auspitz is sufficient to attract attention to this paper, even were it not as it is, an exhaustive discussion of the subject of inguinal buboes. The anatomy of the inguinal and femoral ganglia is described in a most thorough analysis of the results of numerous dissections, and illustrated with plates which are novel to the surgeon and the anatomist of our country. The article in question, is the first of ten lectures delivered at the Allgemeinen Paliklinik in Vienna, last October, and is translated from the *Archiv. fur Dermatologie und Syphilis*, of 1873.

We remark of the translation; it is so miserably executed, that it is at times almost impossible to seize the meaning of the author. Grammatical errors are the least of the faults evident. Long and complicated sentences invite the reader to enter a maze, from which he extricates himself only with the greatest difficulty. Idiomatic expressions are everywhere to be found, and the article is almost valueless to the average student in consequence of these defects.

This would be hardly deserving of mention, were it not for the fact that the Journal which produces Auspitz's lscture in this half English dress, is one of the very best medical periodicals in this country. The literary and scientific standard of the management is infinitely superior to that of the majority of our medical publications; and we look to it for better things. We desire that it shall speak *ex-cathedra* to the profession in this country and abroad, and are confident that the criticism we offer will be received in the kindly spirit in which it is tendered.

ARTICLE II. — *Progress in the Practice of Medicine.* By NORMAN BRIDGE, M.D., Lecturer on Principles and Practice of Medicine, in Rush Medical College.

1. Croton-Chloral Hydrate.

(*a*) Its Action and Uses. By Dr. OSCAR LIEBREICH. (*British Medical Journal.*

(*b*) Its Properties and Uses. By Dr. J. BURNEY YEO. (*Lancet.*)

2. The Influence of Close Confinement in Prisons on the Production of Phthisis. By A. L. LEACH, M.D. (*Am. Jour. Med. Sciences*, April, 1874.).

3. Report of the Vaccine Department of the New York Dispensary for 1873. By FRANK P. FOSTER, M.D.

4. On Small Pox and Vaccination Experiences in the Franco-Prussian War. By MARTIN LUTHER, M.D., Reading, Pa. (*Med. and Surg. Reporter.*

5. Report on the Yellow Fever Epidemic of 1873, at Shreveport, La. By Drs. SNELL, PENNER and DAVIS, a Committee appointed for the purpose by the local Medical Society.

6. The Distribution and Natural History of Yellow Fever in the United States; with Chart showing elevations of localities where it has appeared from 1668 to 1874. By J. M. TONER, M.D. (*Annual Report Sup. Surgeon U. S. Marine Hospitals.*)

7. A Case of Excessive Eructation. By A. L. LEACH, M.D. (*Medical Times*, April 18.)

8. A Speculation on the Operative Treatment of Non-Traumatic Peritonitis. By WM. O'GORMAN, M.D. (*Transactions of the Medical Society of New Jersey, for* 1873.)

9. Hay Fever Successfully Treated. By T. C. HOOVER, M.D. (*Am. Jour. Med. Sciences*, April, 1874.)

10. Biliary Concretions Dissolved. By E. BURD, M.D. (*Med. and Surg. Reporter.*)

1. This comparatively new drug—the composition of which is formulated as $C_4 H_3 Cl_3 O$, it being a chlorated aldehyde of crotonic acid ($C_4 H_6 O_2$)—has been the subject of experiments by Dr. Liebreich. Given to maniacs during an attack of mania, the patients sat quietly in their chairs sleeping during two hours. In tic-douloureux it leads to the cessation of pain before sleep is induced—differing in this from hydrate of chloral. The indications for its use are in cases where hydrate of chloral is inapplicable on account of heart disease, in cases of neuralgia of the nervus trigeminus and in cases where very large doses of chloral are necessary to produce sleep.

The drug, he thinks, acts by being decomposed first into a trichlorated body (allyl-chloroform) and then rapidly into a bichlorated body (bichlorallylene) in which condition it produces its effect on the nervous centre. Trichlorated substances and

chloroform act first on the brain, then on the spinal cord, and finally on the heart—in this way acts hydrate of chloral. Bichlorated substances, on the other hand, act on the brain, spinal cord and medulla oblongata, but not on the heart—in this way acts croton-chloral; and this explains how a medicinal dose does not affect either circulation or respiration.

Dr. Yeo has made extensive observations on the effect of the croton-chloral. It is a "remedy of remarkable efficacy in some cases of neuralgia of the branches of the nervus trigeminus," says he, and it may afford relief in other forms of obstinate neuralgia. It has little effect in purely rheumatic cases, and is of no use in cases known as hysterical. For irritating cough, such as the night cough of phthisis, it is valuable. As an hypnotic it is variable in its effect, requiring a variable dose—one to ten grains—and being less reliable than the hydrate of chloral. The dose is to be regulated by the effect produced, the limit being ten grains. In severe neuralgias five grains may be given every half hour.

2. Dr. Leach has compiled statistics bearing on this subject from ten different prisons in this country. Nearly 46 per cent. of deaths in these institutions are from consumption. Many convicts are yearly pardoned because they have this disease, and many on being discharged go home to die of it; so that 46 per cent. is really below the actual rate of mortality from phthisis.

In some States the pardoning of phthisical convicts is common, in others it is not; and in the latter, the mortality in the prisons is greater.

In closely crowded cities in America, the deaths from phthisis do not exceed 15 per cent.—less than one-third that in prisons.

The physician at the Sing Sing prison reports that fully half those dying of phthisis under his care "have been in prison from one to five times before." But Dr. L. is doubtless correct that, "after allowing for the dissipation and abuse of the lives of criminals as a cause, still we are forced to the conviction that prison life is prolific in producing phthisis."

3. Dr. Foster finds the dried lymph vastly better and more sure of taking than dried crusts or capillary tubes. With this vaccine the success in 824 primary vaccinations was 87.69 per

cent., and in 1,785 secondary vaccinations, 70.76 per cent. Much of the lymph used was two or three weeks old, the result with such being nearly as good as with that only as many days old.

4. The writer of this paper examined 536 cases of variolous disease in hospitals in the field; 401 had been vaccinated, 25 had never been vaccinated. Of those vaccinated, 3.75 per cent. died; of those re-vaccinated, 1.75 per cent. died, while of those unvaccinated the deaths were 68 per cent.

On computations made from Dr. L.'s figures, it is found that of the cases set down as having *good cicatrices*, 0.91 per cent. died, while of those having poor cicatrices, 17.56 per cent. died. The emphasis of figures cannot be increased.

5. The report of these Shreveport physicians shows, to their satisfaction, that the disease was brought directly from Havana on shipboard by way of New Orleans. The committee trace it by a direct chain of communication from patient to patient until it reached Shreveport. They also state that the city had been for some time in a despicably bad sanitary condition. This was in some measure due to a failure of the system of drainage which had been attempted to be introduced.

The first case occurred Aug. 15th; by the 25th of August, cases were occurring rapidly; the disease became epidemic Sept. 1st, and was killed by frost Oct. 20th. So great was the stampede, that of 12,000 inhabitants only 4,500 remained, and of these, 3,000 were attacked with the fever and 729 died. The whites were no more generally attacked than the negroes, but the fatality with them was five times as great. Men suffered more than women, and people from 20 to 35 years old suffered the greatest mortality. The deaths to those attacked were about 26 per cent. Death usually occurred in four or five days from the beginning of the attack. Of the 125 deaths, 85 are declared to have died with black vomit, and 19 with suppression of urine.

No treatment was found so good as *rest*. Mercury and quinine did injury rather than good.

6. Yellow fever in the United States has never appeared at an elevation of more than 700 feet above the sea level, the greater part of the territory visited by it has been less than 100 feet in elevation above this point.

7. Dr. L. reports a case of evident insolation in a laborer, 28 years old, in whom there was the most remarkable phenomenon of eructation of gas. The patient was attacked July 7th, at noon. In the evening he was better; next day resumed work; at 4 P. M. was seized again, had headache, vomiting and *belching of wind.* Next day he worked a little and the bad symptoms reappeared, which compelled him permanently to stop laboring. For a month he was eructing wind almost constantly. He would pass whole nights without sleep, when he could only be quieted with medicines.

At this time, Dr. L. found him "profoundly anæmic, with a cadaverous appearance." Respiration was difficult; gas was constantly passing from the stomach with a characteristic noise. Talking was interrupted by passages of gas, and he could not lie down for fear of choking, having slept in the sitting posture for some time. Everything he ate was eructed with the gas, and he had lost since his sun-stroke twenty-six pounds in weight. He was made worse by contact with the sun's rays. With the use of charcoal and tonics recovery was rapid.

Dr. L. is doubtless correct, that the brain was "the primary seat of trouble." The effect of disturbance of the brain in producing eruction is often remarkable. The reporter hereof has frequently seen in a member of his own family during an attack of sick-headache as abundant an eructation as that described by Dr. L., and continuing for an hour or more without interruption; and this, too, at times when the stomach had not for many hours received any food.

8. In this paper, a new surgical procedure is suggested for the disease named: opening the abdominal cavity by an incision for the escape of any effusion or other irritating matter. No cases of the operation are reported, but abundant facts and authorities are cited to show that the fatality of peritonitis is frequently due to the original irritation not being removed or increasing; and that the effusions due ordinarily to inflammation are usually irritants, especially if fluid and not readily reabsorbed.

In ovariotomy, peritonitis is no bar to operation. Wells has repeatedly operated under such circumstances, carefully removing all effusion, and 70 per cent. of his patients have recovered. Dr. Peaslee's experience with washing out the abdominal cavity with

bland fluids and removing all irritating substances has been favorable, suggesting the impunity with which the peritoneum may be opened, provided irritating things be removed. Certain it is that, if in cases of non-traumatic peritonitis, as great a per cent. of recoveries could be insured by the operation advised as Wells has saved of his patients who had peritonitis at the time of operation, it would show a less rate of mortality than is now the experience.

9. Dr. H. reports four cases of cure of hay fever by atomized inhalations. One was a case of eleven years' standing; the attacks occurring on the 18th of August annually and continuing six weeks. The solution used was, ten grs. chlorate of potassa and two grs. sulphate of morphia to the ounce of water. The relief was instantaneous; the measure was frequently repeated for five days, when it was alternated with one of a solution of bromide of potassium (30 grs. to the ounce). In twenty days the case was well.

Another case had continued six years. Only the morphine solution was used, and the cure was complete. Two other cases were similarly treated and with like success.

10. A case is here reported of a woman 44 years old, who for twenty years had had colic, due to passage of gall-stones one or more times each week. She suffered greatly, was much debilitated, and had received many kinds of treatment.

In the intervals of the colic, Dr. B. prescribed equal parts Venice turpentine and ether, a teaspoonful being taken every morning fasting. Under this treatment, the attacks became less frequent, finally ceased, and the woman grew fleshy and became pregnant. She discontinued the medicine and in fifteen months (January, 1873) had another attack, since which time she has taken the drugs and has been free from colic. Dr. B. thinks the agents used dissolved the gall-stones.

This appears like a genuine case, in addition to those heretofore reported, of the cessation of this painful disease under the protracted use of the ethers, chloroform and the terebinthinate preparations.

ARTICLE III.—*Progress of Surgery.* By JNO. E. OWENS, M.D., Lecturer on Surgery, Rush Medical College, Chicago.

1. Tractile Method of Reducing Strangulated Hernia. By DANIEL LEASURE, M.D., of Pittsburg, Pa., (*American Journal of the Medical Sciences*, April, 1874.)

2. On Suspension in the Treatment of Fractures of the Leg. By JNO. H. PACKARD, M.D., one of the Surgeons to the Episcopal Hospital, Philadelphia. (*American Journal of the Medical Sciences*, April, 1874.)*

3. The Influence of Extension on the Intra-Articular Pressure and on the Articular Ends of Bones. By Dr. REYHER, of Dorpat. (*American Journal of the Medical Sciences*, April, 1874; *Medical Times and Gazette*, Jan. 31, 1874; and *Deutsche Zeitschrift fur Chirurg.*, band iv., heft 1.)

4. Traumatic Aneurism of the Femoral Artery by Injection of Ergotin. Recorded by Dr. PLAGGE, of Darmstadt. (*American Journal of the Medical Sciences*, April, 1874; *London Med. Record*, Feb. 11, 1874; *Betz's Memorabilien*, vol. xviii., part 1.)

5. Popliteal Aneurism Treated by the Introduction of Horse Hair into the Sac. By Dr. BRYANT, Guy's Hospital. (*American Jour. of the Med. Sciences*, April, 1874; *London Med. Record*, Feb. 11, 1874; *Guy's Hospital Gazette*, Dec. 6.)

6. Pyæmia in Private Practice. By PRESCOTT HEWETT, F.R.C.S. (*London Lancet*, April, 1874.)

7. Hypogastric Lithotomy. By SAMPSON GAMGEE, F.R.S.E. (*London Lancet*, April, 1874.)

8. A Series of Cases of Compound Fractures Successfully Treated on Conservative Principles at St. Bartholomew's Hospital. By Mr. CALLENDER. (*London Lancet*, April, 1874.)

9. Turpentine in Pyæmia. By Dr. J. SINCLAIR HOLDEN. (*London Lancet*, April, 1874.)

1. In this article five cases are cited in illustration of the reduction of strangulated hernia by "The Tractile Method." The first case occurred in 1843. In lifting a tub of wet clothing, the patient, a woman, forty years old, felt the protrusion (femoral)

* At the County Hospital, Dr. Powell has been employing this method with great satisfaction, in fractures of the thigh and compound fractures of the leg.

take place. Immediately pain, nausea and vomiting supervened; the former grew constant and intense, and the latter stercoraceous. After persistent but futile efforts at reduction, the patient being under the influence of anodynes and sedatives, anæsthetics not being then in use, it was decided to prepare to operate. Night came on in the meantime, and the patient's suffering grew more intense. Dr. Leasure, made desperate by her cries, and hardly knowing what more to try, stated to her husband that if he would suspend her by the limbs with her head downwards, he would make another attempt at reduction. "So turning his back to the bed, he sunk suddenly down, and placing one of the patient's legs over each shoulder as far as the hams, he seized an ankle in each hand, and drew her heels against his breast, then raising himself into the erect position the patient hung down along his back until only her head and shoulders rested on the bed." The hernial protrusion suddenly slipped away from touch into the abdominal cavity.

In the fall of 1853, Dr. Leasure met with a case of strangulated scrotal hernia, which defied his best efforts at reduction during many hours, having used anodynes, cold, heat, and prolonged compression and manipulation, whilst the patient was thoroughly under the influence of chloroform. Preparations for an operation were completed, but before making the incision it was decided to make a similar experiment to that so successfully performed ten years before. "Requesting an assistant to 'hunker down' by the bedside, the patient's legs were placed over his shoulders, and seizing an ankle in each hand, he drew them towards his breast, and rising to his feet, he carried the lower extremities up with him, until only his head and shoulders touched the bed." "Having pressed with both my hands," says Dr. Leasure, "down along the sides and front of the abdominal walls, as though trying to push the contents towards the diaphragm, the tumor was grasped by the right hand, the fingers passing well over the posterior part, and a slight effort made to draw the neck away from the belt of the stricture, when, without having made any pressure, I felt the posterior part of the tumor give a little slip, then another and, finally, with a rush the whole passed into the cavity."

Dr. Leasure has successfully employed this "tractile method" in the reduction of other cases of strangulated hernia after the best directed taxis had failed. The protruded viscera are, by this

method, replaced by the force exerted from within by "traction" of the mesentery, the intestines and the omentum upon the hernial protrusion, and not to the "pushing in" process of ordinary taxis. Of course, the same general principles that apply to the treatment of hernia by taxis, should be rigidly observed in its treatment by the "tractile method." An irregular practitioner became aware of the efficiency of Dr. Leasure's method, and the latter cites a case in which the former, by a violent trotting of a patient in the "tractile position," tore the ileum and omentum from the imprisoned and gangrenous portion, and killed the patient.

2. This is an "old dish under a new cover," but Dr. Packard has done a good thing, not only in reminding surgeons of Dr. Nathan R. Smith's treatment of fractures by suspension, but also in setting forth the principles upon which it should be employed, and the advantages which it possesses.

In the article Dr. Packard claims for the treatment the following advantages:

(*a.*) "As to the efficiency of the treatment. The patient cannot possibly be kept altogether motionless, and if the limb is duly adjusted and properly swung, the fragments are made to follow each the movements of the other, so that their relative position is unchanged, even in cases of restless children."

(*b.*) "As to the comfort of the patient. Even from the very first he can be allowed to sit up in bed, reading, writing, or attending to business, a most important point, especially to persons in the more cultivated classes, who find the enforced idleness of lying flat on the back intolerably irksome.

"Again, by very slight turning the patient can shift his weight, so as to alter the bearing points of his body, thus avoiding much weariness, and often preventing the formation of bed-sores.

"Again, the bed-pan can be readily used, enabling us to dispense with the 'fracture-bed,' which is particularly objectionable in private practice.

"Once more, the frequent change of angle, both at the knee and hip, obviates, in great measure, the stiffening of these joints, and the use of the limb is regained much sooner than if the extended posture is maintained throughout the period of consolidation."

(*c.*) "As to the comfort of the surgeon. The risk of displacement is really so much diminished by the proper suspension of the limb, that a case so treated needs a less constant and anxious attendance than if this plan is not adopted. To country practitioners in dealing with distant cases, or to city surgeons who have many other demands on their time, this is a matter of no small moment."

Dr. Packard's article is well worthy of perusal by those who are not familiar with the treatment of fractures of the leg by suspension.

3. When filled with fluid, says Dr. Reyher, the knee joint always assumes a flexed position, and the intra-articular tension is considerably raised by slowly extending the limb. The degree of flexion which is thus imposed upon the limb when the cavity of the knee joint is completely distended, depends chiefly upon another condition, namely, the degree of tension of the muscles immediately surrounding it. If all the muscles around the knee joint are preserved, its greatest capacity coincides with an angle of thirty degrees. Bennet teaches that the greatest capacity is with the leg flexed at an angle of sixty degrees, which is true only when the joint is entirely free from surrounding muscles. The reason assigned is that the quadriceps extensor, by means of its tendon, presses the patilla against the condyles whenever the joint is flexed; and the same applies to the gastronemius in its relation to the portion of the capsule behind the joint. In the case of a normal knee joint, a weight of forty pounds is required to separate the articular ends of the bones by direct extension.

The intra-articular tension of the knee joint is, generally speaking, diminished by extension; and that diminution becomes more appreciable the smaller the amount of fluid in the capsule and the greater the relaxation of the surrounding muscles. On the contrary, when the joint is quite full and the muscles are tense, the very slightest extension will considerably raise the intra-articular tension.

The following conclusions are arrived at by Dr. Reyher, viz.: It is possible to separate the ends of the bones at once by means of extension—that is, to produce "distraction"* of the joint;

* The complete mutual depuration of the opposed articular cartilages.

but to accomplish this, a weight of least thirty pounds is required, and this weight has probably never yet been applied to the knee joint of a living man. A smaller weight, for a longer time, may produce the same effect by a gradual extension of the ligaments. In cases where the joint contains much fluid—that is, in cases of abundant serous or purulent exudation—the intra-articular tension rises very high, and forcible extension would sooner produce a rupture of the capsule than "distraction" of the joint. Any attempt at extension in such cases would be both useless and dangerous. But it might, nevertheless, be important in such cases to separate the articular ends of the bones, in order to prevent all pressure and the ulceration of the cartilages, which might result. The author accordingly proposes to tap the joint subcutaneously first, and then try "distraction."

(The use of the aspirator would doubtless be an improvement upon ordinary tapping in such emergencies).

Dr. Albert, of Vienna, has formed a very similar opinion of the value of extension in the treatment of inflamed joints. After a great number of similar experiments in all joints, he has found that where they are fully distended, the intra-articular pressure always rises by extension; and that, in the case of the hip joint, especially, "distraction" is quite impossible.

4. A man was accidently stabbed with a small bread knife, about two fingers' breadth, just beneath Poupart's ligament, and the result was a traumatic aneurism. An ice-bag was applied, and digitalis and morphia administered internally.

The tumor increased, and two days afterwards a solution containing 2½ parts of ext. of ergot, and 7½ each of spirits of wine and glycerine, was subcutaneously injected on the inner side of the tumor, and the ice-bag assiduously applied. The aneurismal thrill lessened on the following day. The injections were continued during the next three weeks. At the end of that period there was visible diminution of the impulse, swelling, and sensibility to pressure. The patient could bear slight pressure for an hour or two at a time, thrice daily, and the ergot injection was discontinued. A fortnight later the impulse was scarcely perceptible, the tumor being scarcely larger than a hen's egg and not very sensitive. Rosar's tourniquet was applied, and the man was sent home. A month later he presented himself with the aneurism cured.

5. The aneurism was of some standing, its presence having been recognized six or seven months previously by the patient, who suffered from initial disease of the heart, and undoubtedly had very bad arteries. Pressure, productive of some hardening of the aneurism, had been tried till the patient was unable any longer to bear it. Epistaxis supervened, due doubtless to the initial regurgitation. The treatment by ergot was tried, as recommended by Langenbeck, but although it improved the pulse and stopped the epistaxis, it had no effect upon the aneurism, which was evidently increasing in size. Mr. Bryant introduced a very fine trocar and canula, and, withdrawing the former, he passed through the canula about eighteen feet of horse hair. This was accomplished in a few minutes, three threads of hair being pushed in together. Blood flowed through the canula, though the artery was compressed till the end of the operation, when it ceased; and when the canula was withdrawn, there was no bleeding from the wound. The leg having been covered with cotton wool, the patient was removed to the ward, the aneurism still pulsating, but not so strongly.

The patient had since died.

Dr. Levis had treated a case by this method in the Pennsylvania Hospital. The result was likewise unfortunate.

6. In an address before the Clinical Society of London, the author cites the history of twenty-three cases of pyæmia occurring in private practice. In three of the cases the disease grew out of gonorrhœa. An operation was performed in only six instances. The operation in four cases was of a trifling nature, namely, a single thread seaton, the removal of a small wart on the heel, one from the scrotum, a small sebaceous tumor of the scalp, and two cases of amputation of the breast. "The first four cases were all in different years, and not in the same locality. The last two were in the same year, and within a month of each other; one was in town, and the other in the country." The third case is mentioned among those of recovery, the patient having had two attacks of pyæmia at several years' interval, and in different localities. "Of the remaining seventeen cases, in which no operation had been performed, there was a broken surface in eleven, and in six there was not even an abrasion." "Of the eleven in which there was a broken surface, it was but small in ten; ulceration of small serocystic tumor of the breast, of abscess in two, of tonsils in two, of

bowel in typhoid fever in three, a needle broken in the leg, a small splinter of wood in the great toe. The eleventh case was a compound dislocation of the elbow. The six cases, in which there was no abrasion, were, slight injury of the foot, followed by suppuration, inflammation of the lateral sinus of the internal jugular vein, in connection with discharge from the ear after measles, etc. Of these seventeen cases, none occurred at the same period or in the same locality. As to the locality of the twenty-three cases, sixteen occurred in town and seven in the country. Of the sixteen in town, all, with one exception—that of a young girl, who, after running a needle into her leg, was admitted with pyæmia into the hospital—were in the best parts of the town, scattered about in good houses of good sizes, with well ventilated bed rooms, well cared for, and, in fact, to all appearances, under the most favorable conditions. The seven country cases were in different parts, and widely separated from each other. Their conditions were excellent."

Dr. Hewett concludes that the causes of pyæmia are still to be worked out.

7. Dr. Gamgee, after expressing himself as averse to innovation and changes for the mere sake of novelty and variety, and after referring to the brilliant success of labial lithotomy in the hands of his countrymen, concurs in the opinion that supra-pubic lithotomy has advantages in exceptional cases. In illustration of the latter he reports the following case:

The patient, a pale, puny little girl for her age, (eight years and nine months), had long suffered from stone in the bladder. The stone was large, occupied one position, and the sound could not be passed around it. The pelvic outlet was very narrow, which fact, together with the size and fixity of the stone, led the operator to select the supra-pubic method. "On opening the tiny, thickened bladder, it was nearly filled with the calculus, which could not be removed without peeling off from its posterior surface the adherent vesical mucous membrane."

"The stone weighed 305 grains, and measured 1⅝ in. x 1⅛ in. x ⅞ in. The wounds in the bladder and abdominal wall were closed by separate metallic sutures. The external ones were cut short, and not removed till the eighth day; but the ends of the two sutures in the vesical wall were left long, lightly twisted, and

brought through the outer wound, so that they could be easily untwisted and slipped through on the fourth day. A catheter was kept in the bladder for a week. The wounds healed directly, and the patient left the hospital on the fourteenth day."

8. It is stated that this series of cases may be taken as representing the average success which Mr. Callender has obtained for a long time past.

(*a.*) Compound fracture of the entire lower tract of the humerus, extending into the elbow-joint. The arm was placed on an angular splint, and swung. The wound was covered with carbolized oil on lint, and over this was laid a thick layer of cotton-wool. The patient was injured on May 3rd. On Nov. 20th he was sent to the Convalescent Hospital, some sinuses in the arm still remaining open. There was some movement at the elbow-joint, and the prospects for further improvement were good.

(*b.*) Compound fracture of the right astragalus, and comminuted fracture of the tibia and fibula, extending into the ankle and into some of the tarsal joints. The limb was supported by splints, and the wound systematically washed out with carbolic acid lotion, and covered with carbolized oil on lint and cotton-wool. Five weeks after admission the astragalus necrosed and was removed.

Reports of Societies.

Chicago Medical Society. *Transactions at the Meeting of May* 18, 1874. Reported by WILL T. MONTGOMERY.

Regular semi-monthly meeting, May 18, in the parlor of the Gault House. President, Dr. Quine, in the chair. Special order, for the meeting: Lecture by Prof. De Lafontaine on the Spectroscopic Appearances of Blood.

The president referred to the continued absence of a portion of the committee on membership, and suggested that some action be taken in reference to it. Dr. Earle moved that a temporary committee be appointed, to act in the absence of the regular one. Carried. The president appointed as such committee, Drs. Paoli, Ingals and Strong.

The Society next listened to the lecture announced for the evening. In his lecture, the professor referred to the controversy between different investigators as to whether or not it is possible to distinguish by means of the spectroscope between fresh and old blood. He with Dr. Simon had instituted experiments for the purpose of determining this, and had used four specimens of blood as follows: First, cattle blood, two years old; Second, his own blood, four weeks old; Third, oxen blood, three days old; Fourth, blood two days old, from a man who died of hydrophobia. The fresh specimens present two dark bands in the spectrum—one in the green and one in the yellow. The old specimens present an additional band in the red.

This is very distinct in the specimen two years old, but in the specimen four weeks old it is merely a faint line. The three bands are invariably present in old blood, and the additional band in the red color of the spectrum is characteristic of it.

The professor referred to some peculiarities presented by the blood of the hydrophobia patient. It remained fluid longer than healthy blood, but decomposition began much earlier. Two days after the death of the patient, bacteria began to appear in the blood and multiplied very rapidly. Two varieties of the yeast plant or fungi were also discovered.

He thinks that the spectroscope is more reliable as a means of determining the character of blood than the microscope, and predicts for it a wide range of usefulness in the study of pathology. Says that it is a better test for bile in the urine than Pettenkoffer's. The lecturer, assisted by Dr. Simon, exhibited specimens of fresh and old blood, which members of the Society were invited to examine by means of the spectroscope after adjournment.

A vote of thanks was given the professor for his interesting lecture.

Dr. Worrell, President of the State Medical Society, having come in during the progress of the lecture, was introduced by Dr. Quine, and addressed the society in a happy complimentary strain.

After the disposal of miscellaneous business, a motion to adjourn prevailed.

Transactions of the Chicago Society of Physicians and Surgeons. *Regular Meeting, May* 25, 1874. Dr. JOHN BARTLETT, *President, in the Chair. Reported by* RALPH E. STARKWEATHER, M.D.

The Society met as usual at the Grand Pacific Hotel, and on motion of Dr. Owens, the minutes of the previous meeting were approved.

Dr. Trimble was prepared to submit only a partial report from the Board of Censors, and requested that hereafter the members of the Society would comply more strictly with the third article of

the constitution in reference to giving full information respecting the candidates proposed for admission into the Society.

Doctors J. W. Freer, W. A. Harvey and H. Hooper were unanimously elected members.

The names of Doctors H. M. Bannister, H. W. Jones, M. O. Heydock, and H. W. Boyd, were proposed, and referred to the Censors.

The customary order of proceedings was now, on motion, suspended, by the presentation and discussion of a series of resolutions and amendments, which will await final action at subsequent meetings.

Dr. Trimble proposed, as an addition to the first article of the constitution, to insert "are now or have hitherto been regular practitioners in the city of Chicago, and are not now engaged in other business." This was further amended by Dr. Owens, seconded by Dr. Hyde, "that no applicants be considered eligible as members of this Society who have not been engaged in practice three years.

Dr. F. H. Davis thought that the period of three years was rather too long, but would favor an interval of one year, after graduation. It is really the young men who do much of original investigation and study, before they become much engaged in business; and it would discourage such men were they kept out of societies, unable to present the results of their studies.

Dr. Owens. The limit of three years is approved by many useful members of this Society not here present this evening.

Dr. Wood would like to see the period made three, or even seven years, as it would elevate the standard of the Society, and make it compare favorably with those of other countries and cities.

Drs. W. C. Lyman and Blake thought the clause relative to following any other business ought to be excised. After remarks by Doctors Henrotin and Jackson, Dr. Evans suggested that the rules of the Association and the powers of the Censors covered the subject already.

Dr. Hyde replied that the code of ethics of the American Medical Association does not prescribe who shall be its members, whether a druggist or physician; it simply directs physicians to discourage the selling by druggists of nostrums, patent medicines and the like.

Dr. Merriman opposed frequent changes in the constitution, as unnecessary. The Society could supplement the action of its Board of Censors when voting upon membership.

Dr. Hyde objected to the annual overflow of graduates from the colleges pouring into the Societies. He would favor the period of two years as a compromise.

Dr. Blake. It seems to me that it ought to be well understood that this Society does not admit a person who is not a practicing

physician, or who may be a druggist; it is unfair to leave such responsibility to the Censors; they deserve to have our support.

Dr. Trimble said the amendment he offered had no intention of interfering with the private business of the members, except so far as the subject involved the drug business.

Dr. Jackson suggested adding to article 1, "who possess a good moral and professional reputation; who shall have been practitioners of medicine for two years; and who shall not be interested in the sale of drugs, medicines or surgical appliances."

On motion, the following resolutions were adopted:

WHEREAS, In the judgment of this Society, it is unbecoming for a member of the medical profession to engage in the business of druggist or apothecary; and

WHEREAS, It is reported that certain members of this Society have already, or are about to assume a financial interest in the prosecution of the general business of the sale of drugs and medicines; therefore,

Resolved, That the Censors of the Society are hereby requested to ascertain if such reports implicate any of its members; and if yea to any of such members, to report the fact of such traffic or business. And if these allegations be true, they shall be informed by the Censors that they will be allowed to resign honorably to themselves, during a period of one month from the date of such inquiries; and

Resolved, That in case any member who has been found to be engaged or interested financially in the business described, do not confess to the same, or refuse to resign the membership in one month, the Censors shall forthwith proceed to bring such member to trial, in the form and manner prescribed by the constitution and by-laws of this Society.

Dr. Hyde, in behalf of Dr. F. H. Davis, presented the report of the Banquet Committee, with vouchers, whieh was accepted, and a vote of thanks to the Committee carried.

It was voted that delegates from this Society to the Illinois State Society, and American Medical Association, be elected at the annual meeting.

The President announced the following appointments to the Sections:

1. On the Practice of Medicine—To report July 13, 1874: Dr. Walter Hay, Chairman; Drs. J. H. Hollister, W. C. Lyman, W. M. Boyd.

2. On Materia Medica and Therapeutics—Dr. D. B. Trimble, Chairman; Drs. J. H. Etheridge, F. H. Davis, H. P. Merriman.

3. Section on Surgery—Dr. E. Andrews, Chairman; Drs. E. Powell, H. McKennan, C. T. Parkes.

4. General Pathology—To report January 11, 1875: Dr. I. N. Danforth, Chairman; Drs. Lester Curtis, C. P. Simon, F. Henrotin, Jr.

5. Obstetrics and Diseases of Women—Dr. DeLaskie Miller, Chairman; Drs. A. Reeves Jackson, A. P. Peck, M. W. Wood.

On motion, the Society adjourned.

***Transactions of the Chicago Medico-Historical Society*—** *Constitution and By-Laws.*

At a meeting held at the office of Dr. N. S. Davis, April 21st, 1874, composed of physicians representing the general profession, and the various colleges and hospitals in the city, Dr. Alex. Fisher was called to the Chair, and Dr. J. N. Hyde to act as Secretary.

On motion of Dr. Hay, seconded by Dr. Jackson, it was voted that a committee of five be appointed by the Chair, who should be empowered to draft the Constitution of an organization for the purpose of collecting and preserving the archives of the profession, and of registering the names and addresses of its legitimate members.

The Chair appointed as members of the Committee, Drs. T. D. Fitch, Bridge, N. S. Davis, Bevan, and Hay.

At a subsequent meeting, held April 28th, 1874, in the Club Rooms of the Tremont House, the Committee submitted their report. After due deliberation the following was declared to be the

CONSTITUTION OF THE SOCIETY.

ART. I. This Association shall be called "THE CHICAGO MEDICO-HISTORICAL SOCIETY."

ART. II. Its objects shall be to discover, procure and preserve, whatever may relate to the medical history of Chicago and vicinity, and the publication of such information as may be from time to time determined upon.

ART. III. It shall consist of, at first, not less than twenty-five members. Candidates for membership shall be nominated by the Committee on Publication, at a regular or special meeting; and at a subsequent meeting they may, on ballot, be elected by a three-fourths vote of all members present; *provided*, the first election of members shall be by the general meeting of the profession at which this organization is effected.

ART. IV. Members may be suspended or expelled on charges of negligence of duty or other misconduct, preferred at a stated meeting, and being within five days thereafter communicated to the accused by the Secretary, at a subsequent stated meeting, by a two-thirds vote.

ART. V. The officers of the Society shall consist of a President, a Vice-President, a Secretary, a Treasurer, a Diarist, and an Editor. There shall also be a standing Committee on Publication, to consist of the President and Editor *ex officio*, and three elected members. These officers (excepting the Editor and Committee on Publication, whose duties are hereinafter designated) shall perform the duties usually appertaining to their respective positions. They (excepting the Editor) shall be elected at the anniversary meeting. The Editor shall hold office indefinitely; but a new election may be ordered by a majority vote, at the anniversary meeting, or at any stated meeting, on the requisition of the Committee on Publication, or of any five regular members of the Society, notice of such requisition having been given at a previous meeting, and by the Secretary, to each member.

ART. VI. The Editor, with the advice and assistance of the Committee on Publication, shall prepare and publish "The Chicago Medical Register," etc., and such other matter as the Society shall from time to time direct, under such regulations as may be recommended by the Committee on Publication and approved by the Society.

ART. VII. The Committee on Publication, presided over by a Chairman of its own choice, shall assist the Editor in the selection and preparation of mate-

rial for publication, make all the necessary financial arrangements, and exercise such immediate control of the "Register" as it is inconvenient for the Society as a whole to exercise; but shall at no time admit or exclude from the "Register" the name of any practitioner whose claim to admission, or the justice of whose exclusion may be open to any question of doubt, except in obedience to the action of the Society, to which all questions of this nature shall be submitted at its several meetings. It shall attend to the keeping of the books, etc., appertaining to irregular practitioners, discharge the duties of the "Biographical Library," and "Portraiture Committees," and act as a Committee on Nominations. It shall report its proceedings to the Society at such times as the former may deem expedient, or the latter may order, and be in all things subject to the control of the Society.

The election under the Constitution resulted as follows:

Dr. R. C. Hamill, President; Dr. D. B. Trimble, Vice-President; Dr. A. R. Jackson, Editor; Drs. Bevan, Owen and Bridge, Publishing Committee; Dr. Wickersham, Diarist; Dr. Chas. W. Earle, Secretary; Dr. R. G. Bogue, Treasurer.

On motion it was voted that a committee of three be appointed by the Chair to propose By-Laws for the Society.

The Chair appointed Drs. E. Ingals, Bartlett and Dexter.

At a meeting held May 5th, the Committee on By-Laws submitted their report, and the Society, after careful consideration, declared the following to be the

BY-LAWS OF THE SOCIETY.

ART. I. The Society shall hold stated meetings on the last Tuesdays of January, April, July and October of each year, at 8 o'clock P. M. The annual election of officers shall be at the April meeting; but should there be no quorum for such election, the meeting may be adjourned from time to time, as circumstances may require. Special meetings shall be called by the Secretary, on the requisition of any five members of the Society; and the object of such meetings shall be stated in the notice to members by the Secretary.

ART. II. The Order of Business shall be, 1st, Roll-Call; 2d, Reading of Minutes; 3d, Report of Treasurer; 4th, Report of Diarist; 5th, Report of Committee on Publication; 6th, Report of Special Committees; 7th, Unfinished Business; 8th, Miscellaneous Business; 9th, Adjournment.

ART. III. No one shall be admitted to membership in the Society who does not give satisfactory evidence of having received a diploma from some respectable medical college; and violations of the code of ethics of the American Medical Association shall be cause of rejection or expulsion.

ART. IV. Any member who shall have omitted payment of dues for three months, or who shall have absented himself from three consecutive stated meetings, shall be declared by the President, at the next subsequent stated meeting, to have thereby forfeited his membership; *provided*, the Secretary shall have given notice to such member of his neglect, and its consequences, and the penalty is not remitted by vote of the Society. Permanent removal from the city may be decided by vote of the Society as equivalent to resignation.

ART. V. Any funds necessary for the carrying on of the work of this Society shall be raised by regular and equal assessment of all the members, said assessment to be made by the Committee on Publication, subject to the approval of the Society.

The Society adjourned, to meet at its stated time, the last Tuesday in July, or subject to call by the Secretary, as provided in Art. I, By-Laws.

The Hospitals.

COOK COUNTY HOSPITAL. May 16. Dr. H. M. LYMAN. *Empyema-Paracentesis Thoracis.* Reported for CHICAGO MEDICAL JOURNAL by RALPH E. STARKWEATHER, M.D.

The patient, a teamster thirty-five years of age, had been neglected before admission to the hospital. The breathing was costal, with movement of chest walls greatly impaired, and considerable emaciation. The line of resonance anteriorly, on right side, was above the third rib; posteriorly, on the right side, it was on a line parallel with the inferior border of the scapula. The right chest measured twenty inches; the left, nineteen inches. The respirations were forty, and pulse one hundred and twenty the minute; but, after tapping, respirations fell to twenty and pulse to one hundred the minute. The patient was tapped by Dr. Steele twice, on the right side, by means of the aspirator. The punctures were made at the angle of the rib, in the seventh intercostal space; and evacuated, the first time, ninety-six ounces, and a week later, eighty ounces, of thick and bloody pus. Usually the sixth intercostal space is selected by Dr. Steele as the seat of puncture.

In a case of pleurisy of the right side, and pneumonia of the left side, in the second week Dr. Lyman was giving the patient five grains of the muriate of ammonia every four hours, in syrup glycyrrhiza, besides quinine and Dover's powder, and continuous application of the jacket poultice.

RUSH MEDICAL COLLEGE. May 21. Dr. FREER. *The Operation of Transfusion.*

In the presence of a number of the delegates to the State Medical Society, Dr. Freer explained the above operation. He first exhibited Dr. Aveling's method—the immediate, from vein to vein. It consisted in taking blood from a healthful person, and passing it, undefibrinated, by means of an india-rubber ball syringe, having the valves removed, and tubes of a foot in length, to an exsanguinated patient. The Doctor criticised the method unfavorably, saying that after four or five charges of blood the tubes attached to the bulb, and the canules also, would clog up; that there was danger from clots, and that it was objectionable to have to deal, while injecting, with a second person; and that trouble, haste and confusion would be inevitable. Dr. Freer preferred the plan proposed by his friend, Dr. McDonald, of Dublin, which he skillfully and brilliantly demonstrated on the body of a dog of about fifty pounds weight.

The apparatus of Dr. McDonald is more simple than that of Dr. Aveling, and consists of a large glass pipette, a piece of rub-

ber tubing, a blunt-pointed, hollow needle or canule, opening a little distance from its blunt point. The dog having been etherized, had so much blood taken from him that most of the audience considered him as actually dead. The blood was defibrinated by rapidly whipping it with twigs taken from a brush-broom, and poured into the large pipette; thence a piece of rubber tubing conducted the blood to the canule, which was held fast in the opened vein. The blood, by its own weight and atmospheric pressure, flowed into the body, and speedily the dog revived and was able to walk about the room.

The median cephalic vein in the human body is to be chosen, the incision in the skin to be parallel with the vein; a tongue-shaped slit in the vein should be made from below upwards; and the tube should be held firmly to the vein, that no air may enter. Plenty of time should be taken for the injection. The blood must be defibrinated, and of a certain temperature. In case of hæmorrhage from placenta prævia, or post partum hæmorrhage, or accidental hæmorrhage, transfusion will prove to be invaluable.

Epithelioma of the Left Foot.

The patient, a young colored girl, exhibited extensive destruction, of two years progress, of the outer half of the dorsum of the foot; the tensor tendons were involved, together with the two smaller toes; there was also an abscess and fistulous tract in the middle plantar region. Dr. Bogue stated that he would remove a portion of the side of the foot, the little toe and its neighbor, including the distal half of the two metatarsal bones, and open the fistulous tract and abscess. The operation was done, the patient taking ether.

Perinephritic Abscess.

The patient, a man of thirty years, had been sick the past month; had lately had a chill followed by fever, loss of appetite and strength; a swelling in the left lumbar region, tender and painful.

Upon explorative puncture, there was a thick dense fluid which ran very slowly from the needle, though it was of a large size, and upon the fluid afterwards cooling, it would not run at all.

Dr. Bogue made an unusually deep incision, parallel with and at the external edge of the quadratus lumborum, and upon pushing aside the muscles, which were much infiltrated, pus gushed up. An india-rubber tube, perforated in numerous places near the end, one-eighth inch in diameter, was then inserted to the bottom of the abscess, that there might be free exit and drainage for the pus, and injection of carbolic acid lotion.

RUSH MEDICAL COLLEGE. May 23, Surgical Clinic. Dr. GUNN. *Two Cases of Pott's Disease of the Spine—Mammary Abscess—Removal of Cystic Tumor of Right Shoulder.*

In regard to mammary abscesses, Dr. Gunn often advised a cold current of air, or the application of the ice bag, or an evaporating

lotion, as an effective preventive of inflammation and suppuration. Often a tobacco ointment prevented the formation of milk in the breast.

In the removal of the cystic tumor, an incision of two inches was made in its long axis, and the cyst dissected. It was a simple cyst, the size of a hazel nut, and had been annoying the patient for eight years. Dr. Gunn used in the sutures white waxed silk, which is the ordinary saddler's silk, boiled in bleached white wax, heated over a water bath. The silk does not absorb fluids any more than wire, and is much easier to use than wire.

RUSH MEDICAL COLLEGE. Clinic for Nervous Diseases. Dr. WALTER HAY. *Three Cases of Progressive Muscular Atrophy.* Reported by HENRY L. HARRINGTON.

1st Patient. Man; aged 55; gardener. States that he has been much exposed to cold and wet. Knows of no case of the same disease in any of his ancestors. Has not had syphilis, neither has he been intemperate. Was well until six months ago. At that time noticed a dull aching pain in the left leg, also that the leg became weak. In a short time it began to decrease in size and continued getting smaller and weaker, until he was obliged to give up work. General health good; appetite good; bowels regular. Neither special sensation nor intellection impaired. On examination, find extensive atrophy of the extensor muscle, also of those of the calf. Patient is unable to flex the foot upon the leg, and the toes drag in walking. The anterior border of the tibia is sharply defined; there is also marked anæsthesia, and decrease in temperature of the leg and foot. He was ordered the following: R. Olei Morrhuæ, oz. ss.; Strychniæ Sulph., gr. 1-20, three times daily.

2nd Patient. Man; aged 48; laborer. States that for the last fifteen years he has worked in a packing house during the winter seasons, being engaged in cutting meat, using a cleaver weighing thirty pounds. In warm weather worked as a hod carrier; gives no history of syphilis, or of intemperance; was well until two years ago; at that time noticed pain, and also a creeping sensation beneath the skin, in the arms and shoulders. One year ago his arms began to get weak and to decrease in size; eyesight became weak and hearing defective; appetite was poor; bowels costive; urinated with difficulty, at times could not breathe easily; has continued getting worse ever since. On examination, find no constitutional disturbance; there is marked atrophy of the supra and infra spinati and deltoid muscles; the bony processes of the shoulder are very prominent. No paralysis; muscles of the fore-

arm and hand not affected. Ordered—Strychnia Sulph., gr. 1-20, three times daily; good food. Also, to avoid violent exercise and fatigue.

3rd Patient. Man; aged 27; laborer. States that for several years he has worked in a warehouse, and has been obliged to do heavy lifting. Had syphilis in 1862. Has been intemperate for ten years. Was well until six months ago; at that time began to have pain in the back of the neck; also, a creeping and twitching sensation in the arms, which has persisted until the present time. Soon his arms and shoulders became weak, and the muscles began to decrease in size; suffered from headache; sight and hearing remained good and the intellect unimpaired; appetite good; bowels costive; urinates ten or twelve times daily; does not sleep well. On examination, find extensive atrophy of supra and infra spinati, deltoid and pectoral muscles; also, of those of the arm, forearm and hand, especially of the adductors of the thumb. [Presenting on both sides the "*main en griffe*" of Duchenne.] Patient cannot dress himself nor convey food to his mouth, although all power of motion is not lost. He was ordered Potassium Iodide, grs. x, with Fl'd Ext. Secale Cornut., dr. ss., three times daily; also, the use of electricity in the form of the continued current.

REMARKS.

GENTLEMEN: These patients illustrate exceedingly well this grave disorder. The disease is primarily due to granular degeneration and atrophy of trophic nerve cells: those cells which preside over nutrition. It is characterized by atrophy of single muscles, or of groups of muscles, generally commencing in the hand, sometimes in the shoulder. The first changes noticed in the microscopic appearance of the muscle, are that it becomes paler in color, and the transverse striæ partially disappear. As the disease progresses, the true muscular elements disappear entirely, leaving simply the sheaths intact, which become condensed into a tendinous cord. Its causes are probably, amongst others, syphilis, intemperance, excessive muscular labor, especially when combined with exposure to cold and wet.

Prognosis is exceedingly grave. Recovery rarely occurs. The disease spreads from muscle to muscle, finally involving those of respiration and deglutition, and the patient dies either of some intercurrent lung affection, of asphyxia, or of inanition. Its duration varies from two to ten years. Sometimes it is held in check for a time, but sooner or later recurs, and progresses to a fatal termination.

Little need be said in regard to treatment, as it is very unsatisfactory. The indications are, to increase nutrition, which is best done by increasing supply of blood to the parts; also to preserve the electrical contractility of the muscles. For this purpose the

daily use of electricity is necessary, either the continued or the interrupted current, as the case requires. If any constitutional taint is present, it should be removed.

Central Dispensary. *Stammering, Loss of Voice and Neuralgia, from Constipation.* Service of Dr. NORMAN BRIDGE.

Master W. B., aged 15 years, of good growth and appearance, was brought to the Dispensary for treatment on March 24th. One week previously he had been suddenly noticed to stammer slightly. At the same time he complained of pain in his head and breast, especially when he would try to speak. The stammering, at first insignificant, grew rapidly worse, and in five days it became impossible for him to speak without great suffering. For two days he had used a slate and pencil with which he had made his communications, not speaking at all. Once, when his parents tried to compel him to talk, they say he had a fit. His general health was not impaired, yet his appetite was less than formerly, and as near as could be learned he had been somewhat constipated for some time. On asking him to reply to a question, he put his hand to his head, seemed in great agony, and half cried, while in a hitching, stammering way, and with great effort and labor, he answered with a monosyllable. What he said was said distinctly, and there was no misuse of language or aphasia. On quizzing his father it was learned that he did not always stammer. Once, in a fit of anger, he had spoken naturally, and once, also, on suddenly waking from sleep. There was no pain anywhere when at rest, no paralysis. The pupils, pulse and respiration were natural.

In commenting on the case, Dr. Bridge said there was no proof of the existence of any organic lesion anywhere. The fact that the stammering had been momentarily stopped by the emotions of anger and surprise, suggested strongly its functional character. In sensitive natures, it had long been known that such symptoms were producible by reflex irritation; by disturbance of distant organs, as by teething, constipation, worms or other local irritations. In this case there was no known source of reflex irritation except, possibly, the constipation. There might be worms, but we had no proof of it. He felt sure constipation alone might produce the phenomena of the case.

The boy was ordered powders of calomel and rhubarb (1 and 3 grs. respectively), one to be taken every three hours until thorough catharsis was produced, with instructions to return in two days.

The patient did not report for five days. He could then speak naturally and with ease, and he was well. All his symptoms had disappeared at once on the free movement of his bowels. In the meantime he had refreshed his memory, and said that at the time of his first visit his bowels had not moved for four or five days.

Editorial.

Since our last issue, two events have occurred to disturb the calm monotony of the medical world. The Illinois State Medical Society has met, transacted, feasted, and adjourned. *Cui bono?* As a pleasant social gathering of representative men from different portions of this great State, assembled in compliance with the cordial invitation of their brethren of Chicago, to exchange friendly greetings, to renew the pleasant associations of past years, and to accept the hospitality of their municipal brethren, it was eminently a success. A more agreeable, genial, courteous and intelligent company of medical gentlemen has rarely ever graced with its presence a meeting of the State Medical Society. From a scientific standpoint this meeting cannot be regarded with so much satisfaction.

From a careful consideration of the meeting and its results, we are forced to the conclusion that the State Medical Society does not exercise the influence and authority in the profession which should be expected from its representative character and from the high order of intelligence of its members. One reason for this lack of influence is inherent in the organization of the Society, and is based upon what is popularly supposed to be an element of strength, but what has hitherto invariably been demonstrated to be an element of weakness in similar organizations; we mean its bulk and its consequent heterogeneity.

For the accomplishment of practical work for the attainment of scientific results, unity of purpose and spontaneity of effort are necessary, and these are scarcely attainable in so large a body of men, selected with reference rather to personal convenience than to professional fitness, and thrown together promiscuously.

The ratio of representation appears to be much too large, every local society having a minimum representation of one-fifth of its total membership, every college, two delegates, *i. e.*, about the same proportion, and every hospital, and every "*permanently organized medical institution of good standing*," *one.* If the basis of representation was designed to be numerical strength, the only objection to be made is its unnecessary magnitude, one-half or one-fourth of this number would be more than sufficient. If the

basis, on the other hand, was designed to be professional efficiency and activity, then there appears to be an unjust discrimination against the schools. Moreover, in this same matter of representation, the largest hospital is placed upon the same footing as the smallest local dispensary with one physician and one patient, which may be "permanently organized and of good standing." Again, the mode of appointing standing committees is open to serious objection. Their organization, being intrusted to a nominating committee but imperfectly, if at all, acquainted with the members at large, with their qualifications or wishes, is necessarily effected in a disorderly and incongruous manner, so that the surgical expert is requested to report on obstetrics, and the student of physiology and psychological medicine upon diseases of children. The result of this confusion is, that neither the aspirant to reputation nor he having already attained thereto, will jeopardize his prospective or present fame by laboring in untried fields. Hence, reports, if made at all, are by no means up to the standard of excellence which they should, and would, under better management, attain.

Many years ago a member of the profession, noted as well for the sharpness of his satire as of his bistoury, remarked of a certain medical association, that it was simply a contrivance to enable Drs. —— and —— to hear themselves talk. This remark, justified, to a certain extent by the proceedings of the late meeting, has suggested the necessity for the application of a "gag law" to restrain the verbosity of certain individuals who have never yet learned to appreciate that while "speech is silvern, silence is golden."

It is to be hoped that the committee on publication will not deem it necessary to publish all that was said, for the enlightenment of our country brethren, but only that which had any meaning; the bulk of the "Transactions" will thus be greatly and advantageously reduced,—a "consummation devoutly to be wished."

What has been said concerning our State Medical Society will apply, *a fortiori*, to that more imposing (no sarcasm intended) body, the American Medical Association. Less talk, less personal advertising, less zeal for self, and more *esprit de corps*, and the

advantages will soon be apparent in the increasing respect of the profession for that which should represent it as a body, and not simply its separate factions, schools, and societies.

In this Association, too, a reduction of the ratio of representation would apply with great advantage, until membership therein should come to be considered an honor, to be eagerly sought by eminent members of the profession, and not, as now, bestowed upon any willing to incur the expenditure of time and money necessarily incident to attendance on its meetings. H.

Book-Keeping.

A great favor would be conferred upon the Senior Editor of the JOURNAL, if the gentlemen who have done him the honor to borrow books from his library would take the opportunity of the mild summer weather to return them.

Particularly, just now, he would like to refer to vol. 28 of the *Am. Journal of the Med. Sciences* (1854); Beale's "How to Work with the Microscope;" "Hassall's Illustrations of Microscopic Anatomy," etc., and "Transactions of the Am. Med. Association," vol. viii.

Three hundred and odd volumes loaned (and lost) within the last three years, ought certainly to excuse him from further depredations. J. A. A.

Declined.

A letter concerning a "pretended *analasys*" "of the Iodo-Bromide of Calcium Comp." is respectfully declined—inasmuch as it is unintelligible. If the Comp. referred to be as intricate as the orthography and syntax of the letter, the "*analasys*" must be "a fraud," and the Comp. itself, like one of Lord Dundreary's conundrums, "one of those things that no fellow can find out, you know."

Concerning this, or any other similar compound, we have only to say, that whatever may be their merits or demerits, whether they possess all the value claimed for them by their proprietors, or are, on the other hand, utterly valueless, no apology can be made for physicians who use them. The prescription of proprietary medicines by physicians involves not only a breach of professional confidence toward the patient, who has a legal and moral right to

expect from his physician the use of his own best skill and judgment, both in the diagnosis of his malady and in the application of remedies for its relief; but it involves also a total abandonment of the whole field of therapeutics to the manufacturing druggist, who is, in all probability, totally ignorant of its first principles. We make no complaint against the proprietors or venders of these nostrums, of which the manufacture and sale, like all other commercial enterprises, will be governed by the law of supply and demand. We do not propose to go outside of our own profession to find the sources of abuses within it. The evil lies within our own precincts. Were there no demand, there would be no supply. Manufacturers would never waste a dollar in the preparation of nostrums which physicians would not use.

The times have changed, and for the worse. Formerly, the popular mind was the object of the delusive arts of quackery, and the ignorant masses were beguiled with the watchword, "every man his own doctor." But the popular mind is fickle, and success based upon any of its phases, expensive in its attainment and transitory in its duration; hence, this unstable basis of commercial enterprise was abandoned for a higher or more secure, if more restricted foundation, the demoralization of the medical profession—for such will surely be the result of the abandonment of the field of therapeutics to the nostrum manufacturers and peddlers.

H.

The County Hospital.

The County Commissioners have at last selected and purchased a site for the proposed County Hospital. In one respect, at least, they have displayed wisdom and good judgment, *i. e.*, in securing ample room for the necessary buildings and grounds. We say buildings, as, after having demonstrated hitherto their appreciation of the necessities of such an institution, it is hardly supposable that they could relapse so far into the abyss of ignorant and old-fashioned prejudice, as to ignore the teachings of modern sanitary science, and erect a cumbrous pile of brick and stone towering to the skies, to become in a few years what no General Hospital should ever be, a pest house.

Mistakes enough have been made in the construction of every building heretofore erected for hospital purposes in this city—

mistakes, whose consequences cannot be averted by the most scrupulous care, the most rigid sanitary system. Let the commissioners, like wise men, profit by the experience of others, not, like fools, buy their own experience at a heavy cost of money and human life.

The opportunity is now offered to the commissioners to immortalize themselves, to confer a great blessing on their fellow citizens and on humanity at large, by erecting a hospital fully up, in all respects, to the requirements of modern sanitary science; that our city, which has led the van in the march of improvement in so many directions, may still keep her accustomed place at the head in this direction also.

Mediæval castles, piled story upon story skyward, with loophole windows and flying buttresses to exclude both light and air, with winding stairs and vaulted corridors, turrets and pinnacles, are not needed for the safe custody and care of the sick—but long, broad, lofty, well lighted and ventilated wards or pavilions, with light and air above, beneath, and on all sides, raised above the earth sufficiently to secure dryness and avoid dampness, and yet not so high as to require many steps for ingress and egress, built with sufficient solidity to secure necessary strength, and yet so cheaply as to justify the destruction of any one pavilion so soon as the increase in the mortality within its walls shall indicate that its atmosphere has become vitiated.

Nor should æsthetics be altogether ignored. The construction of a central building for the administrative department of the institution, will admit of any degree of beauty of design, of solidity of structure, and of elaborateness of ornamentation. As this should be a permanent building, in this, and in the ornamentation of the grounds, the architect and landscape gardener should have full scope for the exercise of their genius and taste. But the pavilions for the sick should be constructed with an eye single to the attainment of the most perfect sanitary conditions, in the light of the most advanced sanitary science.

In considering plans for the new County Hospital, let our commissioners bear in mind one radical idea which should underlie any plan for such an institution, the idea of a wheel, with the permanent administration building represented by the hub, the pavilions for the sick by the spokes, the enclosure by the rim,

and ornamental grounds by the spaces between the spokes. This or some modification of this idea has been demonstrated by modern experience to be that most advantageously applicable to plans for hospitals—whether the best sanitary results or the most economical administration be the governing principle.

A prominent member of the surgical staff of one of our largest hospitals has recently stated publicly, that the mortality amongst surgical cases in the local hospitals was appreciably larger than under similar conditions in private practice. Let us hope that the new County Hospital, constructed upon correct sanitary principles, will turn the scale of comparative mortality in the other direction. H.

The American Journal of Obstetrics and Diseases of Women and Children.

We publish in another column,* by request, the valedictory of Dr. B. F. Dawson on his withdrawal from the editorial chair of this Journal, in which a few of the perplexities and difficulties in the life of a medical journal are detailed. Dr. Dawson has signalized his retirement by an act as graceful as it is liberal, and most worthy of imitation, *i. e.*, the establishment of an annual prize of one hundred and fifty dollars, gold, for the best essay on the Congenital Deformities and Diseases depending on Maladies of the Uterus or Membranes.

If Dr. Dawson's successor is actuated by the same spirit which has been manifested by the founder of the work, the *American Journal of Obstetrics* will always be assured of the same measure of success which has marked the past. "May it live long and prosper." H.

Fiat Justitia, ruat Cœlum.

We publish also, by request, a circular from the Secretary of the Clinton Co. (Iowa) Medical Society, announcing the expulsion of two of its members for violation of its by-laws. Without presuming to express any opinion as to the justice of the act, we must take the liberty to say, that it is positively refreshing to find a medical society having the moral courage to expel obnoxious individuals from its midst. On general principles we say, well done!

* Crowded out.

Sanitary.

We take pleasure in calling attention to the favorable sanitary condition of the city, as compared with corresponding periods in former years, demonstrated by the tabulated reports of the Board of Health, endorsed officially by the Sanitary Superintendent, Ben. C. Miller. The possibility of preserving the health of the city, by diligent and judicious enforcement of sanitary laws, having been demonstrated, there will be no excuse for a relapse into the former slough of ignorance, dirt, and disease.

Editors' Book Table.

NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.

BOOKS RECEIVED.

A Treatise on Pharmacy, designed as a Text-Book for the Student, and as a Guide for the Physician and Pharmacist, etc., etc. By EDWARD PARRISH, late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc., etc. Fourth edition, enlarged and thoroughly revised by THOMAS WIGAND, Graduate of the Philadelphia College of Pharmacy; with two hundred and eighty Illustrations. Philadelphia: Henry C. Lea. 1874.

Of Dr. Parrish's great work on pharmacy it only remains to be said, that the editor has accomplished his work so well as to maintain, in this fourth edition, the high standard of excellence which it had attained in previous editions under the editorship of its accomplished author. This has not been accomplished without much labor and many additions and improvements, involving changes in the arrangement of the several parts of the work and the addition of much new matter. With the modifications thus effected it constitutes, as now presented, a compendium of the science and art indispensable to the pharmacist, and of the utmost value to every practitioner of medicine desirous of familiarizing himself

with the pharmaceutical preparation of the articles which he prescribes for his patients. Books such as this have their intrinsic value to the student, but they possess a further relative value inasmuch as they fill up the vacuities in American medical literature, and render him to that extent independent of the researches of investigators in the old world generally so difficult of access.

H.

History of the American Ambulance, established in Paris during the Siege of 1870–71, *together with the details of its Methods and its Work.* By THOMAS EVANS, M.D., D.D.S., Ph.D., President of the American International Sanitary Committee, Commander of the Legion of Honor, Grand-Croix of the Order of St. Stanislaus of Russia, etc., etc., Author, etc., etc. London: printed for the author at the Chiswick Press, and published by Sampson, Low, Marston, Low & Searle, Crown Buildings, Fleet Street. 1873.

To the American reader, not the least interesting episode in the history of the great struggle, the Franco-German war and the eventful siege of Paris, is the conspicuous and brilliant position taken by his countrymen in mitigating the horrors of war. Nowhere since its origin, has the red cross of Geneva and its noble motto, "*Hostes dum vulnerati fratres*" been more proudly worn than by the brave little band of—better than patriots—philanthropists, whose methods and work are so admirably described in the volume before us.

The work comprises "an account of the formation of the American International Sanitary Committee of Paris, together with the History of the American Ambulance;" Report "on the organization of the American Ambulance," and on the organization of Army Hospitals," from the time of Herodotus, Dodorus Siculus, and the earlier Greek writers, down to the present time, with historical sketches of their gradual development in different countries and successive ages. The preparation of this portion of the report is evidently the work of an accomplished scholar, and a laborious and pains-taking investigator, as demonstrated by the numerous citations, from a vast array of authorities, covering a field of research both wide and varied. The relative advantages of tents and tent-barracks and permanent hospitals for the care of the sick and wounded, are elaborately discussed,

and much, and just, emphasis placed upon the paramount importance of fresh air. The practicability and advantages of removing the sick and wounded is examined. The discussion of these questions is embedded, so to speak, in a mass of classical and historical lore, which remains, a monument to the scholarship and learning of the author.

In the third part, the special organization of the American Ambulance Corps is detailed, together with valuable information regarding the actual condition of Paris during the siege.

Next follow, in numerical order, a valuable report of surgical cases treated—some of the cases being illustrated photographically—the medical history of the ambulance, and a series of admirable lithographic plates.

The whole work is worthy of the subject of which it treats, and that subject, in the eyes of the philanthropist, the brightest scene of that dark and bloody drama, the Franco-Prussian war.

H.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M.D., Fellow of the Royal College of Physicians; Physician to the Hospital for Sick Children. Fifth American from the sixth revised and enlarged English edition. Philadelphia: Henry C. Lea. 1874.

A digest of the data furnished by the observation of between thirty and forty thousand cases of sick children during a period of twenty-six years by so competent a physician as Dr. West, cannot fail to be a valuable addition to medical literature. That such is the opinion of a large proportion of the profession, the demand for the preparation of a fifth edition clearly demonstrates.

The volume comprises forty-four lectures delivered to the pupils of the Middlesex Hospital.

The author manifests his appreciation of the influences of modern civilization in establishing predispositions, by devoting sixteen of forty-four lectures to the consideration of the diseases of the brain and nervous system. And the views therein announced are in the main up to the times, although marked by a spirit of what might be termed ultra conservatism, an unwillingness to wander out of sight of ancient landmarks more especially in the field of therapeutics; while the pathological

details are not quite so satisfactorily elaborated as the author's abundant opportunities for observation might have permitted. This is especially apparent in relation to epilepsy, trismus, and chorea; in regard to the latter, the author's treatment is characterized by a degree of caution which amounts to timidity, and which, while it may be justified by a strict comparison of results, is nevertheless discouraging to the tyro in neuropathology. Hope has been the incentive to every advance in knowledge; without it scientific investigation would be a dreary pursuit, soon abandoned if ever commenced.

In discussing the diseases of the respiratory system, the author becomes more confident, but even here the author's conscientiousness overshadows his boldness, and he is careful to keep well within the limits of therapeutic probabilities.

The subject of cardiac diseases is ably summarized in one chapter. The diseases of the digestive system are treated in the succeeding eight chapters in which we are glad to see, amongst other good advice, a denunciation of the "barbarous empiricism" of lancing the gums of infants "irrespective of the nature of the affection from which the child suffers," or simply to expedite a natural process. We should have been glad to hear Dr. West's opinion of the value of strychnia in some forms of stomatitis in which its effects have been so admirable in other hands; effects to be anticipated inductively, from a comparison of the pathology of the disease and the therapeutic action of the drug.

There can be little doubt that avoidance of the mischievous practice of feeding children upon "arrowroot and other farinaceous food," "which the digestive powers are quite unable to assimilate," and which is thus emphatically condemned by the author, would tend to diminish greatly the ratio of infant mortality. Moreover, we could wish that the whole profession would read appreciatively the language, and imitate the example of this expert, when he speaks of "discarding, therefore, all those preparations of arrowroot, flour, or biscuit powder, in which the vulgar repose such confidence"—in utter defiance of physiology.

The author's commendation of vaccination is couched in the following very moderate tone, "although we should take a comparatively low estimate of value of the vaccination, and confess to the fullest extent the failure in its *complete* preservation, we shall yet

find in the modifying and mitigating influence which it exerts over small-pox, more than enough to make us value it as a priceless boon"—which is being very thankful for very little.

Our appreciation of the value of vaccination is quite as high as that of the author—we too regard it as a priceless boon, and base our regard upon the complete demonstration of its efficiency to eradicate small-pox, if properly used.

Taking the book as a whole there is much to commend, and nothing to condemn absolutely; its defects are rather relative, and appertain to what we have already termed a spirit of ultra conservatism. To the practitioner it will prove a thoroughly safe guide, and a repertory of extensive and varied clinical experience.

Of the typographical and general mechanical work it need only be said that, it is fully up to the high standard common to all the publications of Henry C. Lea. H.

A Practical Treatise on the Surgery of the Genito-Urinary Organs, including Syphilis. Designed as a Manual for Students and Practitioners, with Engravings and Cases. By W. H. VAN BUREN, A.M., M.D., Professor of Principles of Surgery, with diseases of the Genito-Urinary System and Clinical Surgery, in Bellevue Hospital Medical College, etc., etc.; and E. L. KEYES, A.M., M.D., Professor of Dermatology in Bellevue Hospital Medical College, etc., etc. New York: Appleton & Co. 1874.

Observations on the Pathology and Treatment of Cholera, the result of forty years' experience. By JNO. MURRAY, M.D., Inspector General of Hospital, late of Bengal. New York: George P. Putnam's Sons. 1874.

PAMPHLETS RECEIVED.

The Mutual Relations of Physicians and Druggists. An Address before the Graduating Class of the Massachusetts College of Pharmacy, April 22, 1874. By CHARLES E. BUCKINGHAM, M.D., Professor of Midwifery and Medical Jurisprudence in the Medical Department of Harvard University. Reprinted from the Boston Medical and Surgical Journal, May 7, 1874. Boston: D. Clapp & Son.

Recerche ed Experimenti sulla natura e genesi del Miasma Palustre exposte in parte al Congresso Medico-Internazionale di Firenze. Dal Dr. PIETRO BALESTRA. Roma dalla Typografia Romana, Piazza Poli, No. 11. 1869.

Syphilitic Membranoid Occlusion of the Rima Glottidis. By LOUIS ELSBERG, M.D., Professor of Laryngology and Diseases of the Throat in the University of New York. Reprinted from the American Journal of Syphilography and Dermatology, Jan., 1874. New York: F. W. Christern, No. 77 University Place. 1874.

Retention of Urine. By ALEXANDER W. STEIN, Attending Surgeon to the Charity Hospital, Professor of Visceral Anatomy and Physiology in the New College of Dentistry, etc., etc. Reprinted from the New York Medical Journal, May, 1874. New York: D. Appleton & Co., 549, 551 Broadway.

School Hygiene. A paper read by Dr. R. J. O'SULLIVAN, before the New York Academy of Medicine, June 19, 1873.

On Intra-Uterine Fibroids. By J. MARION SIMS, M.D. D. Appleton & Co., New York. 1874.

Urethrotomy, External and Internal Combined, in cases of multiple and difficult Stricture; with remarks on the Urethral Calibre. By FESSENDEN N. OTIS, M.D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York.

The Union University Catalogue, 1873–4. From the Albany Medical College.

Catalogue of the Officers and Students of the University of Virginia. Fiftieth Session, 1873–4.

Thirty-First Annual Announcement of the St. Louis Medical College. Winter Session, 1872–3; catalogue, 1871–2.

Twenty-Eighth Annual Announcement of Starling Medical College, Columbus, Ohio.

The Twenty-Fifth Annual Announcement of the Woman's Medical College, Philadelphia.

The Treatment of Uterine Flexion. By ELY VAN DE WARKER, M.D., Syracuse, N. Y. From *Buffalo Med. and Surg. Jour.*, April, 1874.

Observations in Electro-Therapeutics. By A. D. ROCKWELL, M.D., of New York, Electro-Therapeutist to the New York State Women's Hospital. From *Buffalo Med. and Surg. Journal*, April, 1874.

The Electrolytic Treatment of Cancer. By A. D. ROCKWELL, M.D., etc., etc. Read before the Medical Library and Journal Association of New York.

What Effect does Syphilis have upon the Duration of Life? By FRED'K R. STURGIS, M.D., Asst. Surg. Manhattan Eye and Ear Hospital, New York City.

JOURNALS RECEIVED.

L'Anatomie et de la Physiologie, Journal de Paris—Mai et Juin.
The American Practitioner—June.
" Atlanta Medical and Surgical Journal—June.
" Archives of Electrology and Neurology—May—No. 1, vol. 1.
" Boston Journal of Chemistry—June.
" Boston Medical and Surgical Journal—May and June.
" Buffalo Medical and Surgical Journal—May.
" Clinic, Cincinnati—May 16, 23, 30, June 6, 13.
" City Record, New York—May 12.
" Cincinnati Lancet and Observer—June.
" Cincinnati Medical News—June.
" Canada Medical and Surgical Journal—June.
" Detroit Review of Medicine and Pharmacy—June.
" Dental Cosmos—June.
" Druggists' Circular—June.
" Kansas City Medical Journal—May, June.
" London Lancet—May, 1874.
" Medical Herald, Leavenworth, Kansas—June 1.
" Medical Times, Philadelphia—May 16, 23, 30, June 6, 13.
" Medical Record, New York—May 15, June 1.
" Medical Review, Indianapolis—May.
" Medical and Surgical Reporter, Philadelphia—May 23, 30, June 6, 13.
" Missouri Clinical Record—May, June.
" Medical News and Library—June.
" Medical Examiner—June 1.
" New York Medical Journal—June.
" Nashville Journal of Med. and Surgery—May.
" Ohio Med. and Surgical Reporter, Cleveland—May.
" Pharmacist—June.
Le Progres Medical—Nos. 16, 17, 18, 19, 20.
The Physician and Pharmacist—May.
" Pacific Medical and Surgical Journal—May, June.
" Practitioner, London—May, 1874.
" Peninsular Journal—June.
" Southern Medical Record—May.
" United States Medical and Surgical Journal—April.
" Virginia Medical Monthly—April, June.

***Annual Prize** of the "American Journal of Obstetrics and Diseases of Women and Children."*

Dr. B. F. Dawson, the founder and late editor of the above Journal, offers the following Prize for the best Essay on the subjoined subject:

One hundred and fifty dollars, in gold, for the best Essay on "Congenital Deformities, and Diseases Depending on Maladies of the Uterus or Membranes."

The competing Essays must be sent to the publishers (Wm. Wood & Co., 27 Great Jones Street, New York) of the Journal on or before April 15th, 1875.

The names of the authors must accompany the manuscripts in sealed envelopes, as usual with prize papers.

The Essays may be written in the English, French, or German language; and that one to which the prize may be awarded by the censors, whose names will accompany and vouch for the verdict, is claimed for first publication in the Journal.

The subject for the second year will be announced in the Journal for May, 1875.

New York, May, 1874.

Clinton, Ia., May 24, 1874.

The Clinton Co. (Ia.) Medical Society suspended from membership Drs. G. E. Wetherall, and A. H. Smith, for putting in bids and taking contracts for doing the medical business for the township poor, by the year, the Society having a by-law forbidding it, and they also considering it unfair and unjust towards a helpless class, and that it was undignified and unprofessional.

P. J. Farnsworth.

Chicago Mortality Report for May, 1874.

MORTALITY IN MONTH OF MAY, 1874.

Accident, by burns	1	Abscess, hepatic	2
" by being crushed	1	Ascites	1
" by drowning	4	Angina pectoris	1
" by blast	1	Aphthæ	1
" by fall	1	Apoplexy	7
" kicked by mule	1	Asphyxia	2
" thrown from buggy	1	Asthma	1
" run over by wagon	1	Atelectasis pulmonum	1
" overdose morphine	1	Bowels, obstruction of	2
" by railroad	2	Brain, compression of	1
" by shooting	1	" and lungs, tuberculosis of	1
" by circular saw	1	" congestion of	7
" by scalding	1	" disease of	1

Brain, hemorrhage of	1
" inflammation of	11
" softening of	4
Bronchitis	6
Cancer of breast	1
" bladder	1
" maxilla	1
" mesentery	1
" liver	1
" pelvis	1
" stomach	5
" uterus	1
Cholera Infantum	4
" Morbus	1
Consumption	54
Convulsions	57
Croup	4
" membranous	3
Cyanosis	1
Cynanche trachealis	1
Debility, general	3
Delirium tremens	1
Deficient development	1
Diabetes	1
Diarrhœa	2
Diphtheria	4
Dropsy, general	4
" of chest	1
" cardiac	1
" of abdomen	1
Dysentery	4
Embolism	1
Endo pericarditis	1
" carditis	1
Enteritis	21
Epilepsy	3
Exhaustion	4
Erysipelas	7
Fever, puerperal	4
" remittent	1
" scarlet	6
" typhoid	5
Gastritis	6
Gastro enteritis	3
Hæmoptysis	1
Hemorrhage, cerebral	1
Heart disease	3
" dropsy of	1
" fatty degeneration of	1
" paralysis of	1
" organic disease of	3
" rheumatism of	1
" valvular disease of	3
Hernia, incarcerated	1
Hepatitis	2
Hydrophobia	1
Hydrocephalus	12
Hernia, strangulated	1
Hydro pericarditis	1
Inanition	8
Intemperance	2
Kidneys, Bright's disease of	8
Laryngitis	1
Liver, cirrhosis of	1
" induration of	1
" abscess of	1
Lungs, congestion of	13
" emphysema	1
" paralysis of	1
" hemorrhage of	1
" œdema of	1
Malformation	1
Metro peritonitis	1
Myelitis	1
Measles	2
Meningitis	13
" cerebro spinal	7
" tubercular	1
Metritis, puerperal	1
Metro phlebitis	1
Œdema pulmonum	1
Old Age	9
Paralysis	3
Pelvic cellulitis	1
Pericarditis	4
Peritonitis	4
" puerperal	4
Pneumonia	23
" typhoid	3
Pleurisy	5
Prurigo	1
Pyæmia	3
Scrofula	2
Septicæmia	1
Small-Pox	14
Suicide, drowning	1
" hanging	1
" morphine	3
" shooting	2
Spine, disease of	1
Stomach, hemorrhage of	1
Teething	3
Tetanus	1
Tumor of abdomen	1
Whooping Cough	11
Total	507

Premature births, 15 ; Still births, 57. Total 72

COMPARISON.

Deaths in month of May, 1874.....507
" " April, 1874.....486
Increase..... 21
Deaths in month of May, 1873.....630
Decrease..... 123

AGES.

Under one year	167	Forty years to fifty	36
One year to two	33	Fifty " " sixty	36
Two years to three	14	Sixty " " seventy	24
Three " " four	5	Seventy " " eighty	18
Four " " five	5	Eighty " " ninety	5
Five " " ten	23	Ninety " " one hundred	--
Ten " " twenty	25		
Twenty " " thirty	49	Total	507
Thirty " " forty	67		

Colored	7	Males	283
White	500	Females	224
Total	507	Total	507

Married, 198; Single, 309. Total.....507

NATIVITIES.

Austria	1	Germany	69
Bohemia	8	Holland	1
Canada	14	Ireland	44
China	1	Norway	11
Native—Chicago	49	Poland	2
Foreign, "	164	Scotland	5
United States, other parts	101	Sweden	5
Denmark	1	Switzerland	2
England	18	Wales	1
France	3	Unknown	7

Deaths daily, 16½. Mean thermometer, 58.3°. Rain fall, 2.09 inches.

MORTALITY BY WARDS, ETC.

Wards.	No. Deaths.	Pop. in 1872.	Percentage. one death in
1	1	398	----
2	2	2,174	----
3	15	19,157	1,277
4	7	16,832	2,405
5	19	18,564	977
6	38	31,371	823
7	32	27,644	864
8	32	30,253	945
9	36	30,032	834
10	13	16,624	1,278
11	11	18,340	1,667
12	17	20,876	1,228
13	9	14,636	1,626
14	19	15,892	836
15	64	40,047	626
16	43	19,099	444
17	28	17,513	625
18	33	19,977	605
19	4	2,944	----
20	11	5,023	----
	434		

Ratio of deaths to population in 1872, one death in 721.

No. deaths in Wards	434	Immigrants	1
Accidents	17	Mercy Hospital	1
Alexian Brothers Hospital	1	Protestant Orphan Asylum	1
Bridewell	2	Small-Pox Hospital	2
County Hospital	12	St. Joseph's Hospital	5
Foundlings' Home	19	St. Luke's Hospital	2
Hahneman Hospital	1	Suicides	6
Hospital for Women and Children	3	Total	507

CASES OF SMALL-POX REPORTED DURING MAY, 1874.

Wards.	No. Cases.	Wards.	No. Cases.	Wards.	No. Cases.
1	--	8	1	15	6
2	--	9	3	16	6
3	--	10	1	17	4
4	2	11	--	18	12
5	1	12	--	19	2
6	6	13	--	20	4
7	5	14	--	Hospitals,	3

Total	56
Cases reported during May, 1874	56
" " " April, 1874	63
Decrease	7
Cases reported during May, 1873	
Decrease	14

Directory for the Month of July.

Clinics.—At Mercy Hospital, 3 P. M. Surgery.—Dr. Andrews. At the Central Dispensary, (239 W. Van Buren street), 3 P. M. Medical.—Dr. Bridge. At the Eye and Ear Infirmary, 2 P. M.—Dr. Holmes. At Hospital for Women and Children, 1.30 P. M. Gynæcological.—Dr. Thompson.

Mondays, July 6th and 20th.—Meeting of *Chicago Medical Society*, in the evening, at Gault House.

Mondays, July 13th and 27th.—Meeting *Chicago Association of Physicians and Surgeons*, in the evening, at Grand Pacific Hotel.

Clinics.—At County Hospital, 2 P. M. Surgical.—Dr. Bogue. Medical.—Dr. H. M. Lyman. At Mercy Hospital, 3 P. M. Gynæcological.—Dr. Roler.

Clinics.—At County Hospital, 2 P. M. Gynæcological.—Dr. Quine, 3 P. M. Ophthalmological.—Dr. Hotz. At Mercy Hospital, 3 P. M. Ophthalmological.—Dr. S. J. Jones. At St. Luke's Hospital, 8 A. M. Surgical.—Dr. Owens. At Central Dispensary, 3 P. M.—Dr. Bridge.

Clinics.—At Mercy Hospital, 3 P. M. Medical.—Dr. Merriman. At Central Dispensary, 2 P. M. Gynæcological.—Dr. Adolphus. Diseases of Chest. Dr. E. F. Ingals. At Hospital for Women and Children, 1.30 P. M. Medical.—Dr. A. H. Foster.

Clinics.—At County Hospital, 2 P. M. Medical.—Dr. Bevan. Surgical—Dr. Bogue. At Mercy Hospital, 3 P. M. Medical.—Dr. Nelson.

Clinics.—At Rush College, 2 P. M. Surgery.—Dr. Gunn. 3 P. M. Diseases of Nervous System.—Dr. Hay.

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXXI. — AUGUST, 1874.—No. 8.

Original Communications.

ARTICLE I.—*To Prevent Rotation in Fracture of the Femur, when treated by Weight and Pulley.* By J. E. O'BRIEN, M.D., Scranton, Pa.

As extension, and sometimes counter-extension, can be best maintained by adhesive plaster, in the early stage of fracture of the femur, it only remains to apply the same means to prevent rotation. If I treat the right limb I wind two straps around it at the knee, and tack them to the sides of the bed; the right strap leaves the popliteal surface, the left strap leaves the patella. I wind one of them just above the patella, the other just below. This is the best plan yet tried to prevent rotation; I have used it in two cases.

While writing about this fracture, I will mention an easy method of improvising a good thigh splint, which I think will be appreciated by my fellow students in the country. Having put on the weight for extension, take binders' board or leather, measure from

the patella to the pubes, and round the thigh, above and below, cut accordingly; soften the splint in hot water, slip it beneath the thigh, tuck in an even layer of cotton on each side till the cotton meets behind; pass four leather straps with buckles under your splint, mould it to the limb, using more cotton if necessary, and draw the straps tight. This is an efficient splint, but I have suited myself still better by having it cut into strips after it has been on a few days, and uniting them hinge fashion, by strips of adhesive plaster.

With such means for preventing rotation, such facility in improvising short thigh splints, and with the sand bags to support the leg, I consider the weight and pulley treatment almost perfect, and have used it in the Lackawanna Hospital here, and in private practice. Just now there is a discussion going on in New York on the treatment of this fracture, and an effort is being made to introduce plaster of Paris as a *primary* dressing.

ARTICLE II.—*Another Case of Habitual Regurgitation, similar to the one reported in former number of* MEDICAL JOURNAL. By GEO. W. EMERY, M.D., De Pere, Brown Co., Wis.

William H——, aged fifty-six, a farmer, consulted me a few months since at my office, then in Paxton, Ill., for what I then discovered to be intermittent fever. In taking the particulars of his case, he informed me that he had a peculiar habit, which he said had existed for twenty-five years, and for which he had consulted several physicians without any beneficial results, and none claiming to have met with a similar case. The following is from my case book:

No cephalalgia nor vertigo; at present has bad taste, and tongue is furred; never subjected to constipation, and appetite has always been good; he regurgitates his food while eating, also several times after meals, and again after repeating the operation of mastication returns food to the stomach, the amount regurgitated decreasing after each time regurgitated; about three hours after meals the eructations cease to be palatable, as they then acquire a

bitterish, acid taste, and the patient then expectorates the then much decreased eructations, which appear of a chylous nature.

He also stated, as in Dr. Graham's case, that the pleasure of remastication excelled that of the meal. In this case I found hepatic hypertrophy, with some splenic enlargement, which I think was produced by malarial fever about seven years previous, and which I could not connect in any way with the condition named.

My treatment was not directed to a case of abnormal condition of the stomach, as the patient, as well as myself, considered the case from its long standing beyond any aid. My theory is that it was an acquired habit, and with care in masticating, slowly eating, and opposing the habit, the difficulty could have been removed.

ARTICLE III.—*Case of Ascites, treated by the Introduction of a Drainage Tube.* By J. M. WEST, M.D., Springfield, Ill.

For the purpose of calling the attention of the profession to a somewhat novel method of treating a class of abdominal dropsies, the following case is reported:

A German farmer, aged sixty-six years, bachelor, residing some twenty miles from my office, called for advice and treatment. Has ascites of two years' standing; has had treatment, which was only palliative; could not detect either cardiac, renal or hepatic disease to be the cause of the dropsy, and hence concluded that there existed in this case a secretory action of the peritoneum above the capacity of the absorbents to remove. For the purpose of removing the accumulation now existing, tapped the patient on the 21st of April, 1873, removing three gallons of fluid. He was then put on the usual remedies for the purpose of preventing a reaccumulation, but without success, since on the 29th it became necessary to tap again. On the 10th of May was obliged to resort to the same process. Again on the 16th, in each case removing about three gallons of fluid.

It was observed, after being tapped, that for several days the patient's appetite was good; he slept well, and seemed to recu-

perate rapidly, until the distention appeared to interfere with the digestive and assimilative functions, then he rapidly lost ground again. A casual remark in the presence of the patient in reference to a drainage tube, set his wits to work, by which he came to the conclusion that if a tube was inserted in his abdomen for the escape of fluid, there would then remain nothing to prevent his speedy recovery. The danger of such practice was pointed out to him, but he did not seem to appreciate it; he seemed, as time went on, and other measures failed, only the more importunate to have it done. After consulting with Drs. Townsend and Phillips, of this city, and taking into account our belief that after a dropsy has existed for a time, the susceptibility of the peritoneum is very much lessened, it was determined to introduce the tube, which was done at last tapping. We believed that such a measure would relieve the embarrassed respiration and assist digestion, and a vigorous digestion and assimilation of plastic material would thereby enable him to surmount the difficulty.

I had made, a silver, spool-shaped tube for the occasion, corking it, and allowing the patient to remove the cork at will. The tube was allowed to remain ten days. At the expiration of that time, there being no further indication of fluid, and patient experiencing considerable pain, it was deemed best to remove it. The patient's abdomen feeling tense and lobulated, as well as tender to the touch, a few doses of opium and quietude set matters aright with an entire cure of our case. Up to this date, now for more than one year, the man has been entirely free from his dropsy. No doubt there was a sufficient amount of inflammatory action set up to change the relative balance between the secretive and absorptive action of the peritoneum, and probably to cause some adhesions between their opposing surfaces.

ARTICLE IV. — *Report on Surgery.* By J. L. HAYS, M.D., of Paris, Ill., May 1, 1874.

Mr. President and Members of the Æsculapian Society:

I have the pleasure, as Chairman on Surgery, to report a few cases of some importance.

My first, is one of organic stricture of the urethra in a married male, aged 38. He first found himself with stricture during the war, and was treated by the surgeon of his regiment and cured; near the close of the war he had another attack, when it became so difficult to micturate as to require treatment by catheter; he procured himself a catheter and passed it occasionally until about two months before I saw him in September of last year. He had been informed by some physician that the only way he could be cured was to be operated upon by cutting out the stricture. The physician who had him under charge at the time I saw him, told me he would not consent to have a catheter or sound used—that he was determined to have the stricture cut out with a knife.

I saw him the 19th of September, with a haggard, anxious expression, terrible pain in region of kidneys, bladder largely distended, pulse 100, groaning at almost every breath, and when he walked about the room he went bent over with his hands on the hips. His drawers and bed clothing were wet, and a peculiar odor issued from his person. By standing over a vessel a long while and occasionally straining, enough urine escaped to discover its condition, it being excessively turbid, with muco-pus suspended in it.

I was denied the privilege of sounding the bladder, as he declared no man should touch him but to operate. His treatment previous to this had been judicious, having in view to relieve any congestion or spasmodic condition that might be present. The night previous he had taken a large saline cathartic, and it was followed by an opiate.

When I assured him I would operate, he consented to let me pass the sound. I found a stricture one inch from the meatus, but passing the sound down it stopped in the membranous portion. (The membranous portion of the urethra is three-fourths of an inch long, and lies between the prostate and the bulb.) I manipulated probably half an hour with different sized sounds, but made

no entrance. We then put him under chloroform and the sound again stopped at the place as before; I cut down in the raphe to the point of the sound and passed the knife up to the prostate, when the sound slipped in; I then drew off the water and cleaned the catheter and left it in the bladder. Forty-eight hours afterwards I again attempted to pass the catheter, but it would not enter the bladder. We put him under chloroform again and cut a small bridle of the stricture, and passed my finger into the membranous end of the prostate, when the sound (and then afterwards the catheter) passed in readily. I visited the patient the following day and introduced the catheter easily. The next day I failed to introduce the instrument, but as he passed a tolerably good stream through the wound I was satisfied to let him remain.

Although we kept him upon tonics and as good diet as could be had, his health failed, and on the sixth day I thought he would not recover; his condition became very critical, with an anxious, haggard expression, delirous, and pulse feeble at 120. Constitutional treatment was all that could be done; this we kept up, while the flow of urine gradually improved, but most of it passed through the wound. I procured a Holt's dilator, but had the same success—failed to pass it. In four weeks the wound had healed, except a fistulous opening; I closed this by paring the edges, and a suture; in seven weeks after I operated he went to work, being able to pass a moderately large stream, the patient introducing a catheter daily, to the prostate. In February of this year he left the country, and I lost sight of him.

On the 29th of June, 1873, I was called to see a child æt 6, who had drawn a grain of parched coffee into her windpipe. It had been done three hours before I saw her with Dr. Baum. It was dark when we got to the house. She had been sleeping, but awoke as we entered, and I thought would suffocate, but the paroxysm of coughing having passed, she again fell asleep, and we decided not to operate till morning.

Next morning, Dr. Ten Brook and myself repaired to the place, found the little patient sitting on her mother's lap breathing badly, had had several spells of coughing, but without the effect of expectorating the foreign body. We at once decided to operate, and

with the parent's consent, chloroform was administered. We made the operation of tracheotomy. The hemorrhage was considerable although I divided the structures carefully with handle of scalpel; when we reached the trachea, the child had a violent paroxysmal cough and might have suffocated, as it had turned blue and was in a terrible spasm, when I pushed the knife into the trachea, the air whistled in sharply and the child became quiet; cutting about three rings of cartilage and pulling the sides asunder by threads passed through each side, we cleaned out the blood and mucus and found the grain of coffee lodged in the vocal chords of the larynx; after extracting, we closed the wound with adhesive straps, and she made a speedy recovery.

John B., of Indiana, German descent, aged 65, came to my office in the spring of 1872, to ask my opinion in regard to his eyes. I saw he was blind, of cataract, but asked him to give me the history of the case. He said that two years before, he became blind in the left eye and soon noticed the other failing him, which condition continued till he became perfectly blind in a few months afterwards. Some man at Indianapolis, who had some reputation, had gone out to his home and operated on the left eye, but instead of it curing him had made him worse, as he was unable afterwards to see light, and ever since he had suffered with neuralgia and rheumatism.

Upon examining his eyes I found a mature cataract of right eye, pupil perfectly dilatable. The left eye was suffused in tears; pupil nearly closed, with peculiar lustre; iris colored; pupil not affected by atropia; tension increased; conjunctival and sub-conjunctival vessels engorged. and pain in the eye ball and temple. There was no mark of an operation for cataract visible. My diagnosis was easily made, which future developments proved to be true. I had here a case of chronic irido-choroiditis supervening on the operation previously made, and what was the operation? Evidently the operation for cataract by the reclination method.

The question I now had to decide was, is an operation for cataract safe and judicious? This I answered negatively, for the following reason: It has been a well authenticated fact for several years, that a foreign body in the humors of the eye is most likely to produce irido-choroiditis in that eye, and sympathetic ophthal-

mia in the other, and the hope in such a case is in the removal of the affected eye. To have operated on an eye for cataract in which the other was already blind from irido-choroiditis would have been to sacrifice what little hope was left, and doomed my patient the remainder of his life to darkness.

I therefore advised enucleation of the left eye and a subsequent operation for cataract on the right. He did not consent to this, and returned home. I lost sight of him for about a year, when he returned, still suffering from irido-choroiditis. I again insisted on his having the eye removed, when he reluctantly consented. On May 8, 1873, it was removed, the excessive pain from which he had suffered for so many months left him, and he entirely recovered in about two weeks. On the 30th of the same month, by the assistance of Drs. Miller, Wooley and Baum, I made Liebreich's modified linear flap. The capsule was ruptured, and the lens came out by pressure. I had no prolapse of the iris, and did not make an iridectomy, which is usually done. In five days my patient could bear considerable light. A very slight attack of iritis having occurred in two weeks, I suited glasses to him: for reading, No. 2; for walking and distance, No. 4. The pupil was round, with the exception of a small bit scarcely discernible.

I attribute my success in this case to two things: First, in not being baffled by the patient when he declined to be operated upon rather than have the eye removed; and second, by having full control of the patient when I did operate.

My next case, is E. M., blacksmith, who, six years before I saw him, had a piece of steel or iron scale pass into the eye while at work on the anvil. A physician was summoned, who put him in a dark room and treated him perhaps judiciously; the result, however, was, he went blind from iritis; the attacks of iritis would recur on account of posterior synechia and occlusion of the pupil. The choroid in course of time became involved; this produced or resulted in the same sort of case as before stated, irido-choroiditis. He kept his bed two months; when I saw him I advised an iridectomy, as promising some relief; this was followed by so much relief that he went to work, but it again became as bad as before. I then made a large iridectomy in the upper portion of the iris, which

promised even better results; but eventually, after he had been at work two weeks, the pain recurred, and he sent for me to take the ball out; this was done early last spring. A few months later, I procured for him an artificial eye which serves him a good purpose, and I am pleased to say he is satisfied.

ARTICLE V.—*Uterine Hemorrhage, appearing after five and one-half Months' Gestation, caused by Detachment of the Placenta—Premature Delivery, favorable to Mother and Child.* By L. J. WILLIEN, M.D., Terre Haute, Indiana.

Knowing the anxiety and fear all practitioners entertain, when consulted or called to the bedside of women affected with hemorrhage, I will here give the history of one, rather of an interesting character.

Was summoned to see A., aged 16 years, medium size, nervoso-lymphatic temperament, delicately constituted; blonde, fair complexion. Has complained more or less of poor health during the last year. Menstruated when fourteen years of age; always regular, but accompanied every time with severe pains in back, and bowels, and headache, which soon ceased after the menses had appeared.

On the 18th day of May I made my first visit, and obtained the following information:

Menstruated the last time about the fifth of November, 1873; supposed to have become pregnant on or about the 15th of the same month; had enjoyed good health, no morning sickness, had good appetite, and bowels moved regularly. Never complained of pain until the latter part of April, when quickening increased, bearing-down sensation, pains in lumbar region, with more or less sensitiveness towards fundus of the womb, rather exaggerated on pressure; the discharges from the vagina, a muco-sanguinolent fluid, became daily more abundant, until they were followed by pure blood, leaving no doubt in our mind of threatening hemorrhage. Fœtal pulsations were distinctly heard over the pubis and to the right. External palpation revealed no abnormal condition, either in form or position of the uterus.

Per vaginal exploration: Vulva and vagina normal; perineal and constrictor muscles relaxed, the canal containing coagulated blood; cervix elongated, and os tincæ barely permitting the passage of the finger, yet from it exuded a small quantity of blood. By careful digital exploration we discovered no signs of tumor nor spongy substance on the inner surface of the os. Not being enabled to reach farther at the time, we desisted from using force or subjecting the patient to more fatigue. The question as to the diagnosis was, Had we a case of placenta previa, *i. e.*, a partial one, or a detachment of the placenta's outer edge?

A few days of close attention and patience soon revealed to us that it was the latter.

In the meantime we ordered our patient to absolute rest, cold, acid draughts, bowels moved with siedlitz powders, laudanized enema per rectum, and 30 drops of fl. extr. of ergot every three or four hours, until hemorrhage ceased. On the 19th and 20th, patient is somewhat better of pains, but flooding continues and is becoming more abundant. The same evening at 4 P. M. the patient was taken with a chill, followed by severe uterine contractions. Ordered sulph. of quiniæ, gr. ij; ergotine, gr. iij; ext. conii, gr. j; M. ft. pil. No. 1. Repeat every three hours; having suspended ergot several days previously.

After taking the pill the patient felt much relieved, and hemorrhage apparently ceased. On 21st and 22d, rested very comfortably; only complained of a little nausea toward bedtime.

May 23, at 6 P. M., hemorrhage becomes more abundant, uterine contractions continual, with unrelenting pains in the back, general nervous jactation, hands and feet cold, pulse 100, soft and regular, facies turgescent; considerable blood in vagina, cervix effaced, os tincæ flattened and edges yet resistant; head presses down.

Ordered enema with 20 m. tr. opii, per rectum; R. Inter. gum opii, gr. $\frac{3}{4}$; pulv. pot. chlor., gr. vj; pulv. pot. bromidi, gr. xv. To be repeated in sweetened water every three hours until relieved.

Soon after, patient fell asleep and rested until morning. Fearing perhaps some intermittent, rheumatismal type of uterine fibres, we ordered 8 grs. of quinine to the above powder, which the patient took on the morning of the 24th. Called to visit her again at 11 A. M. Wasted very little during the night. Vomited early in the morning, but afterwards retained her victuals. Uterus hard

and painful on pressure. Pulse soft and regular; 80 per minute. Bowels constipated. Ordered seidlitz powder every two hours, and absolute rest.

At 3 o'clock P. M. was summoned in haste to her bedside, with information that she was worse. Fearing any serious complications, and unwilling to take upon ourselves all responsibility, we kindly invited Dr. J. D. Mitchell to visit the patient with us. At our arrival we found uterine contraction fully established, strong, regular and expulsive. On external palpation felt strong motions of the child. The vagina was moist, more or less blood flowing therefrom; cervix uteri completely effaced; os tincæ dilated to the size of a silver quarter: head of child pressing into the upper strait; membranes protruding slowly. No signs whatever of placenta juxta ori being discovered.

Six P. M. Os dilated, membranes protrude, contractions strongly expulsive, membranes give, and are ruptured at half-past seven. The head passes through the vulva at eight o'clock. The child breathed immediately; of the female sex; very small, of about two and a half pounds' weight; body well developed; finger and toe-nails nearly grown. The liquor amnii was abundant, and of a dark-brown color. The placenta was expelled a few seconds after the birth of the child, and discovered the following points of interest:

1st. Funis twelve inches long; umbilical veins varicosed; placentary tissue very consistent, oval-shaped, showing near the margin to the extent of three inches in length and about an inch and a half in width, a dark, soft mass of previously detached placental tissue; the utero-placentar vessels gradually breaking, and thereby causing the hemorrhage. Not the least sign of flooding appeared after delivery, both mother and child doing well.

This premature delivery we considered a happy event for the mother and child, when we know how alarming and dangerous uterine hemorrhages are, no matter from what cause, during gestation.

ARTICLE VI. *A Case of Perforation of the Bladder, followed by Recovery.* By L. J. WILLIEN, M.D., Terre Haute, Indiana

Daniel S——, æt. twenty years; sanguino-lymphatic temperament, strong constitution, light complexion, medium size; miner by profession; born in Scotland; working in the mines at Brazil, Indiana, some three years; enters Providence Hospital on the 27th day of November, 1872. Being summoned to his room, we obtained the following history of the case:

Six weeks previous to his arrival at the hospital, while working in a mine, one of the arches in the gangway gave way; a large block of slate felled him to the ground, striking the lower portion of the spinal column, pelvis, and lower extremities; he was then removed to his boarding house, with a complete paraplegia; beginning about the third lumbar vertebræ, both motion and sensitiveness were lost, as also the bladder and rectum. Although no evident signs of fracture of the pelvis were discovered, yet internal injuries were to be feared.

The attending physician, perhaps not forseeing the dangerous consequences, introduced a silver catheter into the bladder, and left it there without removing it for several days, and the patient apparently regained motion and sensibility of the parts injured. Suddenly he was taken with intense burning pains in the lower bowels, repeated chills, with high fever, followed by an abundant perspiration, with tumefaction extending from the pubis up to the right crest of the ilium, and descending along the groin to the lower third of the thigh.

After undergoing a general treatment, both internally and locally, the abscess broke about two and a half inches below the crest of the ilium, discharging a vast quantity of thin pus and urine. Two weeks from that time Daniel was sent to the hospital by his friends in such a weak and exhausted condition that they feared he might not reach the hospital alive. On his arrival he presented the following symptoms: Great emaciation of the body; skin dry and hot; eyes sunken in their orbits; tongue red and dry; breathing short and quick, with numerous mucous and sibilant rales disseminated through the posterior parts of the chest; great thirst; no appetite; pulse weak and depressible, one hundred per minute; bowels constipated; passes no urine through

the natural channels; part motion and sensibility in the left leg, with total absence of same on the right side. All inflammation, excepting of the thigh, had subsided, leaving the fistulous opening already mentioned, out of which freely flowed a heavy stream of urine when direct pressure was made upon the bladder. The thigh was very painful, surface of the skin red, with evident fluctuation. As far as probing would permit us through the fistula, we had before us a plain case of perforation of the bladder of the middle and anterior surface, causing numerous urinary abscesses of the abdominal muscles and thigh. Two indications presented themselves as to the treatment of the case: 1st. A good nutritious diet, such as beef essence, rare steak, eggs, etc., wine, egg-nog, etc. Medicines: Tincture of cinchona comp., one teaspoonful three times a day. Externally: Carbolic acid, one-half drachm, rain water, oz. iv. Mix, and apply to fistula. At the same time we introduced a small catheter bougie as far as possible with safety, and pushed with a syringe some of the solution through the fistula, besides introducing a soft rubber bougie into the bladder. to favor a free evacuation of urine. Applied warm poultices, well sprinkled with laudanum.

Nov. 28th. Same condition; same treatment; bowels constipated. Ordered five grains pulv. rhubarb every three hours until effect. Made three free incisions into the thigh to evacuate accumulated pus and urine; then made free injections through the diffused abscess with tepid carbolized water, ordering the whole covered with a poultice.

Nov. 30th. Patient somewhat better; pulse eighty per minute, soft and regular; cough less severe. R. Syrup phosph., iron, quin. and strychn., tr. cinchon. comp., *aa* dr. j. Repeat three times daily, and continue same as before.

Dec. 2nd. Same state and same treatment. Same on Dec. 3rd, 4th, 5th, 6th and 7th, with slow improvement.

Dec. 10th. Urinates without catheter; the abscess of the thigh heals rapidly; very little urine escapes through the fistula; his appetite is good; continue same treatment.

Dec. 18th. Urinary fistula nearly closed; no more urine escapes; thigh well, and patient asks permission to leave the bed, having no remaining symptoms of paraplegia. We continued a tonic treatment and diet during two weeks more, without intermission, after which time the patient had entirely recovered.

ARTICLE VII.—*Food for Infants. A Review of the Review.*
By ALEX. S. VON MANSFELDE, Chicago.

Personally we would refrain from a reply to the reviewer's article, since our "little knowledge" (we never claimed more) forbids us to curtail the space of a journal, the tendency of which is the dissemination of medical knowledge, either theoretical or practical; but for the desire to defend a theory, the practical demonstration of which is so highly worthy of the attention of the best of our profession, since it is followed by consequences not altogether indicative of "absolute nonsense."

We admit that our "surface reading," in the language of the reviewer, would forbid a rejoinder to his profound (?) criticism, but for one short-coming of our friend, the utter want of sight; and since we sat side by side with him in old Rush once upon a time, we are pained to observe this deformity, and, for old acquaintance sake, shall endeavor to operate, and hope the best from it for our friend.

He says, on page 286, May No., Chicago Med. Journal:

"The young infant relies upon milk for both food and drink; hence it is important that the proportion of fluid and solid should correspond with its wants. We add a *little water* (our own) to make good these proportions, and not, as our author observes, for the purpose of 'diluting casein.'"

We never said that water was added solely to dilute caseine, nor gave our opinion in regard to the matter, but simply quoted authorities, and the reviewer attests the same "*to make good the proportion*," and we denied, and do now most positively deny the correctness of such practice.

That milk is dilutable, or its components, of which caseine is one, we know by the practice of the Chicago dairy-men; and that the proportion of its solids to the fluid can be brought in harmony with the relation existing between the different components of human milk by the addition of a little water, 10–20 parts of water to a thousand, we surely could not deny; but ridicule the addition of 1000 parts of water to 885 already existing, in order to make up for a deficiency of 10 to 20 parts. *And such is the authorized practice!*

We are not aware of the beneficial action that such water does assert upon the precipitate in the stomach, other than a solemn protest of the cloudy caseine, left behind by the cowardly retreat of the water, leaving the poor organ to do the best it can with such *product of infinite dilution.* It must certainly be beyond the reviewer's right to claim propriety for such dilution, until he shows its favorable action upon the digestive process.

We claimed the opposite, and gave our reason. Authorities: Todd and Bowman. "Drinks, as water and various other liquids, fermented or not, are doubtless likewise in great part absorbed in the same way as liquefied albuminous food from the surface of the stomach. (Page 563) it is, its blood vessels (Page 562). If milk be introduced into the stomach, its caseine is first coagulated and afterwards apparently dissolved. The solidified caseine seems gradually to melt down, and becomes absorbed." (Page 560. Dalton's Physiology, p. 133.)

"There is never much fluid found in the stomach during digestion of any article of food, but gastric juice is constantly secreted and constantly absorbed, together with the food digested by it." (Dalton's Physiology, p. 133.)

"An observant patient of mine with emphysema, tells me that she finds it a good rule never to drink with her meals." (Chambers on Indigestion, p. 90.)

"Drinks are immediately absorbed, or otherwise disposed of." (Carpenter Phys., p. 114. William Beaumont's Experiments, p. 97.)

"But it has some degree of importance in demonstrating the fact that a degree of solidity (of food) is necessary for the operation of this agent (pepsin)." Dr. W. Beaumont's Experiments, p. 146. Author's edition, 1833.

Again he says, on page 287, Chicago Medical Journal:

"Just how sugar is assimilated we cannot tell, but this we know that it is *essential,*" (his own).

We have no objection to a little sugar, if the reviewer pleases, but never observed its helping the infant, who was fed by milk to which sugar was added; which in such cases is seldom regulated by the natural requirements, but is given far above its normal quantity.

Does the reviewer assert, upon his own experience, that craving sugar is a *natural* appetite? Would like to have him prove that

sugar does not interfere with digestion, or tend to intestinal irritation. What has he got to say against the assertion that children may have *polyphagia and pica?*

Will not oil take the sugar's place in the economy of the child, and may it not be *less harmful* than sugar? Authorities:

"It is therefore quite natural to find that *any excess of sugar taken ready made*, induces discomfort in dyspeptic patients. It is undigested, and the greater part undergoes *acetic fermentation* by the second or third hour after it is eaten. During its fermentation it also encourages fermentation in other articles of food, and by its presence oleaginous food is apt to be rendered indigestible also. Great discomfort will sometimes go on for a long time from this cause without being suspected, and cease by the simple expedient of *leaving off a constituent of diet so little necessary as sugar.*" (Chambers on Indigestion, p. 52.) (Emphasis our own.)

"The much greater frequency of softening of the stomach and intestines in infancy and early childhood than in adult age, and the great amount and the wider extent of the alterations, have received considerable elucidation from the researches of Dr Elsaesser. He found that a much more rapid action upon the animal tissues, than that exerted by the gastric juice, was put forth by any substance capable of undergoing the *acetous fermentation combined with pepsin* (our own). Such substances are furnished by the milk, as well as by the various farinaceous and *saccharine matters* (our own) on which infants almost exclusively subsist. The tendency of these substances to undergo the acetous fermentation, is checked by the presence of healthy gastric juice, while, as we know by experience, it takes place very readily in infants who are dyspeptic, and to a very marked degree in many cases of infantile diarrhœa." (West. Diseases of Infancy and Childhood, p. 485.)

On the same page our reviewer says: "We have yet to learn that simple redness of the mucous surface, which always occurs during digestion, is an inflammatory indication, *as stated by the writer*" (our own). Now, what does the reader imagine we think of such language, when compared with our own statements: "The acidity and chemical changes leave a reddened condition of the intestinal membrane, an inflammatory indication, not even noticed when chloride of sodium is substituted for sugar."

What has the reviewer to say to Drs. Chambers, Elsaesser and West? Is the fermentation process so complained of by the former, caused by saccharine or oleaginous food? Is the softening of the stomach and intestines, which is found in so many children after death, as stated by the latter authorities, caused by normal afflux of blood consequent upon normal digestion? Or is not dilation of the capillaries, abnormal rapidity of the blood current, reddening of the surface, transmigration of the white-blood corpuscles; increased egress of the liquor sanguinis; stasis, caused by grouping of the red corpuscles—in one word, *inflammation*—the necessary precursor of softening, which may be and often is caused by fermentation of saccharine aliment? How can the reviewer charge us with confounding the *third step* in the series, denoting the inflammatory process, with *inflammation itself?* He certainly leaves room for doubt as to any work on pathological histology ever having reached his little village.

We may have our own estimate of the "*high calling*" in which we are engaged, but should like our next reviewer to disprove our *assertions*, and not define the relation we hold to our mental balance sheet.

In regard to the experiments we instituted, of which the reviewer speaks in such delicate terms on page 289—which language may be well compared with a *deliberate knocking down* and asking the prostrate antagonist's pardon "*with due courtesy*"—we simply draw the reader's attention to the following:

On page 288 he says: "In No. 3, according to his observation, precipitation failed to take place." On the same page: "In No. 3 we are utterly at a loss to understand how the gentleman could so fail in correct observation."

Now observe our own statement, on page 141: "In No. 3 we observe small granules of precipitated caseine, smaller and compacter than those in No. 1, but the fluid retained its milky appearance." Do we say anything even similar to his statements, or did we leave such impression upon the reader? We simply wished to convey the fact that the precipitate in No. 3 was neither deposited upon the bottom of the vial nor raised to the surface of the fluid, but was held in suspension in the same—and surely our language does not permit any other definition—in the form of a true caseine precipitate.

But what we did claim and assert to-day, is, that the addition of oil to milk does, either in the stomach by natural coagulation or by artificial precipitation with any acid, give form of a coagulum, which is far more spongy than that produced by the omission of oil.

Why does our reviewer say nothing about the physical appearance of his precipitate?

Why does he not try to disprove Elsaesser's assertion, to which our investigation forms simply the missing link?

That the reviewer has no objection to Lehman's *theory* (our own), we consider farcical, as his objection would not weigh a grain one way or the other; but the renowned teacher, we claim, has a right to see the authority by whom *his facts* are degraded to simple *theories*. We have given authorities in our article, and do this in our present note, and shall not answer any argument, after this, that is not based upon experiments, or is corroborated by authorities, *at least as good as our own*, for we aver our dislike to swallowing assertions whole.

Now, in regard to the addition of oil, our reviewer says, on page 284:

"We are decidedly of the opinion that *no addition* (his own) would be far preferable to that which he recommends but does not tell us he has tested practically."

On page 287 he says of sugar: "That as an aliment it can largely take the place of fat."

Now, all these would not deserve mentioning, for they are assertions and opinions of the individual, and manufactured for the occasion, but for the test of practicability he requires.

Please read what Chambers says on indigestion, page 63:

"The effects of cod-liver oil become less and less a marvel the more we know of physiology. The instinctive desire shown by all nations for an oleaginous diet, and their association of substances of this nature with proverbial ideas of happiness in all ages, show the value of a certain amount of it to man's comfort. The butter and honey of the prophet, used as a phrase of royal food, and the constant reference in the Bible to oil as a luxury (though it could have been no rarity in a land of oil-olive), these are sufficient to prove its estimation among the Hebrews. The Hindoo laborer, when he devours his gallon of rice for a meal, will spend all the pice

he can get on the clarified butter of the country, and 'as good as gher!' is his expression of unqualified admiration. It was a mistake in Baron Liebig to state that oily foods are disgustful to natives of hot climates. All races of men require them and seek after them; and the taste of the Esquimaux, so often quoted, depends mainly on the abundant supply of the article which the sea places at his disposal, coupled with a scantiness of other provisions. Throughout mankind there is an instinctive appreciation of the importance of this aliment, independent of accidental differences of nationality or locality. It seems felt to be, as science shows that it really is, a necessary material for the renewal of the tissues, and the desire for it becomes synonymous with a desire for augmented life.

"An easily assimilated oil comes, in fact, into the short list of life-giving articles in the pharmacopœia, for it is itself the material by which life is manifested. Here, under its use, beneficial influences are exerted throughout the whole body; old wounds and sores heal up; the harsh, wrinkled skin regains the beauty of youth; debilitating discharges cease, at the same time that the normal secretions are more copious; the mucous membranes become clear and moist, and are no longer loaded with sticky epithelium; the pulse, too, becomes firmer and slower, that is to say, more powerful, for abnormal quickness here is always proof of a deficient vitality. Such are the effects, perfectly consistent with physiology, of supplying a deficiency of molecular base for interstitial growth."

What has the reviewer to say to this perfect hymn, sung to the praise of fat by one so capable?

On page 156, vol. xxvi, *Medical and Surgical Reporter*, we refer to the necessity of fat for the formation of all cell growth; for without this material, cell formation would not take place, at least such seems to be the conclusion arrived at by Rindfleisch and other histologists.

Dr. Burritt and myself, in *Medical and Surgical Reporter*, vols. xxiii and xxvi, have expressed our confidence in the efficacy of oil as a remedy for summer-complaint.

Dr. Fred. Schaller, of this city, has for years given almond emulsion with the most happy consequences, and *for the emulsified oil it contains*—for what else is of efficacy in this preparation?

He being a close observer, and having a large German practice, should surely be competent to witness the success of his remedy, and his praise is unqualified.

As to the efficacy of oil as an adjuvant to cows' milk, used for feeding infants, we refer the reviewer to the physical changes which it produces, and to its physiological effects, reminding him of the remarkable fact, that oil will act as a remedy in most disorders that are the cause and consequence of perverted digestion. Are not most hand-fed children sufferers from indigestion, and are not half of them victims of its deadly consequences?

What about the reviewer's rules?

No. 1 simply states what teachers and books, with very few exceptions, teach up to this day. And what does this signify? It simply asserts the loss of fifty infants out of a hundred by this practice, and proclaims the unsoundness of such teaching.

No. 2 asserts things which the reviewer cannot sustain—which are disproven by most eminent observers, as above cited, and may be shown to be incorrect by any one who is addicted to the use of much sugar, especially by candy-eaters.

No. 3 simply throws the reviewer's argument to the winds, for it gravely asserts everything we desire for the support of our position. We pity the reviewer for not making this statement the heading of his article; it would have saved him all the rest of it.

It is: "If the milk be properly selected"—in the meaning of the reviewer, the last of the milking—"it is not necessary to add oil to it, for it contains already more fat than human milk." How wise!

My dear Doctor, this is the very thing we want!

Please send us, by all means, the last milking of all your cows, and then, farewell to "detestably adulterated cod-liver oil and sweet almond oil"!

Rule No. 4 has nothing to do with our article, for we would not breathe a word against it, nor did we.

Finally, we express our thanks to the reviewer for having noted our weak effort to further the cause of poor, suffering baby. And if we most humbly bow to Him who in the deep holds hidden many a ray of the sun of truth, we nevertheless strive to pluck one by one from their secret recesses to enlighten the world of science, in twilight arrayed, and hope that a glimmer of it will not fail to reach Low Point.

And should the warming tendency of the advance of knowledge melt away the crust that enshrines so many hearts, endeavoring, from their limited boundaries, to pluck the credit from honest endeavor, the writer will be amply rewarded; and the CHICAGO MEDICAL JOURNAL, for undertaking the laborious task of mediator, may be assured of the thanks of many who in their time have drunk only too much of brotherly love enshrined in calcified hearts.

211 SOUTH HOYNE STREET.

ARTICLE VIII.—*A New Treatment for Burns.* By M. OLMSTED BALDWIN, M.D., Wamego, Kansas.

Without offering comments upon the many remedies now in use for burns, the writer ventures to present one which may perhaps in part be new, and not without advantages.

For a considerable time, it has been our custom to use eggs, the white and yolk together, well beaten up, as a local application, and the remedy has given a great degree of satisfaction. Our manner of applying, is, after the eggs are well beaten, to saturate old and well worn pieces of muslin therein, and spread over the injured surface, two or three layers thereof being superimposed; the relief is immediate and complete. The dressing should be renewed each twelve hours, meantime, should it become dry, it may be moistened by dripping water over it. After the first two or three dressings we add a little carbolic acid and glycerine, to correct any disagreeable odor, and also stimulate the healing process. The dressing is easily removed, and leaves a clean, fresh-looking surface, not attainable under the old processes.

Selections.

Treatment of Vascular Nævi with the Galvanic Cautery. By B. F. DAWSON, M.D., etc., New York. From the *Amer. Jour. of Obstetrics and Diseases of Women and Children*, May, 1874.

In vol. iv, No. 3, November, 1871, of this journal, I published a paper on the "Treatment of Vascular Nævi with the Actual Cautery," and related therein several cases in which the most satisfactory results followed that method of removal, or rather destruction; and having since operated many times in like manner, I still adhere to the views therein expressed of its advantages and gratifying results.

During the last two years, however, I have had opportunities of witnessing the use of, as well as using myself, the galvanic cautery in various operations, when it is "par excellence" the best means at the command of the surgeon. Having possessed myself of an apparatus, I have used it many times for the destruction of nævi—in some of which, other methods, excepting the actual cautery, had proved unsatisfactory—with unfailing success and most gratifying results.

As many surgeons still seem undecided as to the best means for removing this not uncommon congenital disease, many still adhering to the oldest and most unsatisfactory methods, I deem it not inadvisable to add my testimony in favor of a method that at least one high authority, Dr. Maas, of Breslau,* pronounces to be followed by the best results, and much safer than the injection of iron or other coagulating fluid. This opinion he arrived at after having used the galvanic cautery in 112 cases with the following results: *Capillary nævus*—cured, 32; improved, 1. *Cavernous or venous nævus*—cured, 72; improved, 8; died, 3. *Arterial or racemose nævus*—cured, 2; improved, 1. *Nævus combined with other tumors*—cured, 6; improved, 1; result unknown, 2.

The galvanic cautery differs from the actual cautery in the means and facility for heating the needles, while it is superior to the latter from the fact that the degree and duration of the heat is wholly under the control of the operator, and consequently it admits of being used with greater care and deliberation, while the actual cautery needles, readily parting with their heat, necessitate their hurried use. These advantages, combined with the admissibility of using very fine needles, are the only advantages the galvanic can claim over the actual, for the effects of the two methods are precisely similar—destruction of the diseased parts by

* Archiv fur Klinische Chirurgie, vol. xii, 1871.

heat. Both methods have the advantage of allowing the destruction of nævi in parts of the body where it would be either unsafe or impossible to apply other means, as was the case in the third of the following cases which I have selected as best illustrating the advantages claimed for the galvanic cautery.

CASE I. Mary O'Neil, one year and eight months, was brought to me February 17, 1873, with an irregular capillary nævus, the size of a bird's egg, situated immediately beneath the lower left eyelid. The history was as usual—that it was a small spot at birth, but had grown rapidly to its present size, and was a source of annoyance to the parents, as well as considerably disfiguring the child's face. The parents wishing its removal, the following day (18th) I singed it carefully, but thoroughly, with the galvanic cautery, throughout its whole extent, but not deeper than the cutis, so as to guard against unnecessary destruction of tissue, and consequent cicatricial contraction. Cold compresses were then applied and kept in place by a bandage. The next day there was slight consecutive inflammation of the adjacent tissue, very little swelling, and but slight sympathetic congestion of the conjunctivæ. In a week after, all signs of congestion had subsided, and a thin scab covered the site of the nævus, which fell off on the twelfth day after the operation, leaving a healthy dark pink and soft escar, showing no trace of the nævus, and not in the slightest contracting or impairing the mobility of the lower lid. Several weeks after, a slight discoloration was the only mark noticeable.

CASE II. Jessie B—, two years old, fine healthy child, was brought to me from Flushing, Nov. 21, 1873, by previous arrangement, to be operated on for a subcutaneous venous nævus situated over the right eyebrow. Compression, collodion, and argent. nit. had been used by different physicians without result, as the disease continued to grow to its present size of about half an inch long by one-quarter wide. As in the preceding case, I singed the nævus thoroughly with the platinum needle at a red heat, a wet compress was applied, and the child taken home to Flushing the same afternoon. Five days after, I saw it at my office, and found a firm black scab covering the seat of the nævus. In a few days this scab fell off, leaving a healthy pink cuticle beneath, but at the lower angle a small dark spot showed that a portion of the nævus had escaped destruction. This was destroyed, in like manner, on Dec. 21st, one month after first operation. The result in this case has been perfectly satisfactory, for when seen on Feb. 24th last, the seat of the nævus could only be recognized by a small mark scarcely noticeable, and which the parents have recently informed me is getting fainter each week. In this case I was assisted by my friends, Drs. Rankin, Porter, and Hanks.

CASE III. Sarah Hawley, fourteen months old, was brought to me Feb. 21, 1874, at the Dispensary for Sick Children, with a subcutaneous venous nævus in lower portion of the upper right eyelid, and considerably disfiguring the child. The history was one of rapid growth to its present size of a large pea.

The mother stated that she had taken the child to the Eye Infirmary in this city, but that she was advised to have nothing done. On close examination I resolved to operate on the tumor, as from its very rapid growth it was evident that the whole lid would before long be involved, and its function being thus impaired, the eye itself would suffer. From the location and deep character of this nævus I could judge of no safe means of removing it excepting the galvanic cautery. Certainly it would have exposed the eye itself to injury to have attempted its removal by the potential caustics, vaccination, or coagulating injections, for the reason that the effects of these methods would extend beyond the actual site of the nævus, as their action is not wholly under control; the opposite is the case in using the galvanic cautery needle, with which it is possible to destroy slowly and cautiously, and only to the extent deemed safe in view of the consecutive inflammation.

On Feb. 24th, assisted by three of my students, I operated on the case, entering the nævus with the red-hot platinum needle at the lower border of the nævus, which was held by forceps, and thus destroying it subcutaneously by working the point of the needle cautiously to the right and left, avoiding going too deeply. The whole operation was completed within three minutes, and the child on recovering from the chloroform was removed to its home, a wet compress being previously applied.

I saw the child again on the 27th, when a firm scab covered the site of the nævus; there was also some congestion of the conjunctivæ, but nothing very marked, and but little swelling of the lid. On the 30th I saw the case again and found the scab removed and a slight cicatrix remaining. The eye in all other respects looked healthy. When last seen, April 2d, nothing excepting a small scar showed where the nævus had been; there was no contraction of the lid, and the mother expressed herself highly pleased at the result. Certainly no better result could have been obtained by other methods of treatment.

These three cases may be considered as fully illustrating the superiority of the galvanic cautery over other means for destroying nævi, and I feel confident that it will before long be universally considered the safest and most reliable means in the majority of cases for removing this so often disfiguring and sometimes dangerous congenital disease.

The Hospitals.

Cook County Hospital. Surgical Clinic. May 26. Service of Dr. BOGUE. Reported for CHICAGO MEDICAL JOURNAL by RALPH E. STARKWEATHER, M.D.

Osteo-Aneurism of the Right Ilium.

W. B., a laborer, 22 years of age, while running backwards, in August last, fell heavily, striking on his back and right buttock. In December, a lump appeared in the gluteal region, and became painful—this gradually increased in size; the pain extended down the right thigh. The tumor is ovoid, the size of a very large egg, its centre is over the sacro iliac symphysis, the size increased two inches in the past four days. It pulsates, but no bruit can be perceived. Upon explorative puncture, the patient lying prone, the needle was inserted three and one-half inches upwards and forwards at the border of the tumor; blood came per saltum—synchronous with the pulse, but did not so continue at all depths.

At another time, upon a different site and angle of puncture, a cavity was discovered. At first, the blood was dark venous; deeper down, came the cavity from which blood flowed per saltum; deeper still, a bony base was felt, and there was no flowing of the blood. Pressure on the abdominal aorta lessened the tension of the tumor, and stopped its pulsations, but did not alter the uneven feeling of the tumor. A fluid drachm of liq. ferri persulphatis was injected, causing the pulsations to cease; and morphine was ordered as required.

Subsequently, on May 30, Dr. Bogue, by an incision of over four inches, laid open the tumor and turned out its contents—a mass of small anastomosing vessels and erectile tissue, resting upon the eroded inner plate of the ilium. The bone had degenerated; a roughened collar of bone could be felt, circumscribing the base of the tumor, encroaching on the edge of the sacrum. The glavano-cautery was applied to two large vessels and the lips of the wound; the cavity, which would admit the whole hand, was packed with lint and the dried sulphate of iron.

Dr. Bogue remarked, that it was rare that a contused wound is followed by an aneurism. Sometimes an incised wound does

produce accidentally an aneurism. It is probable that this aneurismal tumor is of malignant character.

CLINIC, by Dr. LYMAN. June 16.

A case of chronic sub-acute meningitis, due to a fall received three months ago, by which the head was injured. Complains of pain over occiput and the temples; pupils dilated; pulse sixty, and weak. The right hand raises the dynamometer 102°; the left to 110°. Ordered counter-irritation; opium as anodyne; potassium bromide as alterative.

A case of pneumo hydro thorax, in which the dullness extended on the right side, posteriorly, as high as the third intercostal space. By means of the aspirator, ninety ounces of a clear, lemon-colored fluid was drawn off, the puncture being made at the seventh intercostal space. The patient should sit up during this operation, and be warned that there may, for various reasons, be danger of collapse of the lung and chest wall. It is well to strap the side of the chest.

A case of sciatica, in a man forty years of age, due to overwork, mal-nutrition and exhaustion. Generally this affection is of rheumatic origin, or may be due to exostosis, to syphilis, or to cancerous growths. Ordered first a laxative, then cod-liver oil, tinct. ferri muriatis, and a grain of quinine three times a day; also anodynes. Dr. Lyman remarked that the profession was becoming more cautious in the use of morphine by hypodermic injection. Chloroform, once in four or five thousand administrations, would cause a death. Hence in this case he used the endermic method, and showed the class that it would act promptly, and produce none of the discomforts which opium may occasion. Taking a thimble he filled it with lint and soaked it with strong liquor ammonia. Removing the cuticle, he applied the one-third of a grain of morphia sulphate, covered it with a pledget of lint, then a piece of oiled silk, fixing it with strips of adhesive plaster. Cantharidis should not be used as a vesicant for this purpose.

SURGICAL CLINIC, by Dr. BOGUE. June 16.

A boy, ten years of age, while trying to jump on to a train of cars

in motion, fell, and sustained a compound and badly comminuted fracture of the foot and lower third of right leg. Amputation under ether was done at the point of election below the knee. Anterior and posterior flaps were made. The hæmorrhage was slight, Esmarch's method being used.

An excision at the right ankle joint was made in the case of a laborer who had fallen down into a cellar, producing a fracture of the fibula, its lower two inches; also of the lower and outer end of the tibia obliquely downward, forward and inward; also a comminuted fracture of the astragalus, together with laceration of the ligaments of the joint. The rubber tubing was adjusted to the limb, and retained for over seventy minutes. The patient being fully under the influence of ether, the first incision was made along the posterior border of the fibula, behind the external malleolus to the fifth metatarsal bone. A similar incision was made on the inner aspect of the limb; portions of the fibula and tibia were removed, and the whole of the astragalus; the articular cartilage of the os calcis was removed. After ligaturing four vessels, an obstinate capillary oozing was checked by the dried powdered persulphate of iron. The limb, joint and foot were encased in a plaster of Paris dressing.

MEDICAL CLINIC, by Dr. H. M. LYMAN. June 19.

A young colored woman was under treatment for phthisis pulmonalis, complicated with Bright's disease of the kidney.

Unilateral Rheumatism, followed by Chorea of the opposite side.

The patient, a girl of fifteen, had suffered from rheumatism, the joints and limbs of the left side being the seat of pain and swelling, for more than one month. At present she lies in bed unable to walk, with twitchings of the right leg—no power in the hand or ankle of same side. Mental condition very much weakened; the choraic movements very strong and marked on the right half of the body.

An English writer, Dr. Hughlings Jackson, speaking of chorea as a disease, the sequence of rheumatism, advances the theory that the valves of the heart become covered by vegetations, the result of inflammatory rheumatism; some of these are detached, and

being carried by the current of blood, lodge in the corpus striatum of the brain, and hence chorea results; the shortest distance between the heart and brain would be upon the left side, and hence the lesion would be shown upon the right side of the body, as is the case in this choraic girl. The prognosis is usually not fatal, unless there is loss of sleep. Treatment may be, quinine, strychnia (gr. $\frac{1}{30}$), arsenic, cod-liver oil. Chloral will check the restlessness.

SURGICAL CLINIC, by Dr. BOGUE. June 23.

A case of synovitis of the right knee in a little girl six years of age, is treated, in its present stage, by straps of adhesive plaster and bandaging.

Congenital malformation of the right external ear, in a boy eight months of age. The auricle was no more than one-third the size of that of the opposite ear, and the concavity was directed backwards, the convexity of the entire rim of the helix pointed forward towards the face; the middle and internal ears were thought to be normal. No treatment was, for the present, advised.

Dr. Bogue laid open several fistulous tracts in a stump formed after an amputation of the left thigh at the hip joint. The operation on this man was done one year ago, and was the second that had been done in this hospital, each with successful results.

SURGICAL CLINIC, by Dr. BOGUE. June 30. *Syphilitic Pemphigus and Lupus — Two Cases Simple Fracture of the Clavicle — Dislocation of the Right Shoulder—Fracture of the Leg.*

The patient with syphilis said he had contracted a chancre fifteen months ago, and been very improperly treated, to which fact he attributes his present truly unfortunate and deplorable condition His entire forehead is a mass of pustulation and crusts of pemphigus. The crusts are a red-brown color, roughened and furrowed, and much larger in size than those of rupia. There are similar patches upon each malar prominence. A line of these crusts extends from the forehead down upon, and on either side of, the ridge of the nose. The larger part of the outer wall of the nose has been destroyed, and the floor of the nose is left exposed. All portions of his body are covered with scars from

various syphilitic eruptions. The patient has a bad cough, and is in a very depressed, anemic, emaciated condition. Dr. Bogue ordered tr. cinchona comp. and the syrup iodide of iron, and said that in this case, for the present, the treatment would be such as would improve the general condition, and, later, a treatment for syphilis, the mild use of hydrargyrum, not long continued, and in small quantity. Then some form of iodine.

A blacksmith, twenty-four years of age, had his left clavicle broken at its outer third by a blow. This fracture was treated by keeping the man in bed, and so placing a pillow under the right shoulder that the weight and position of the joint and extremity on the injured side would keep the points of fracture in line and apposition. Several other methods were spoken of, such as using a sling, or adhesive plaster, or Fox's apparatus. In the case of a lady patient, where more attention to a possible deformity must be paid, Dr. Bogue would use Taylor's splint for posterior deformity of the spine.

Dislocation of the Right Shoulder.

The patient had fallen out of a wagon, the week previous, and had been treated for simple contusion and sprain. The dislocation was downwards, and was reduced, under ether, by pulling the arm outwards and upwards. Afterwards the forearm was brought across the chest, and retained by a bandage.

Fracture of the Left Leg.

A young man of twenty-two years of age, had broken his leg in two places, the tibia four inches from the internal malleolus, and the fibula two inches below its head. There was no displacement. The plaster of Paris dressing was applied thirty-six hours after the injury was received.

The Alexian Hospital. Service of Dr. A. J. BAXTER. July 1.

At present, there are under the care of the Alexian Brotherhood, forty patients, though the hospital has a capacity for one hundred and fifty patients. There is a noticeable absence in the wards of the crowd of hospital tramps and "revolvers," candidates for the almshouse and lunatic asylums, old pensioners and chronic ulcer impostors.

Lithotomy—Compound Fracture—Strumous Disease of the Knee, and Amputation—Conical Stump—Esmarch's Bloodless Method.

Dr. Baxter removed a vesical calculus, weighing one and one-half ounces, from a boy of thirteen, by lateral lithotomy; the calculus was attached to a very unusual place, being almost encysted behind the symphysis pubis.

A case of compound and comminuted fracture of the leg was progressing finely. A blanket, being so folded as to form a case and splint for the limb, strengthened by thin wooden splints placed in the folds on either side, and cold water dressings, were the only treatment. A plaster of Paris splint will soon be applied.

There were two cases of amputation—one of the thigh, the other of the leg; both cases were admitted after the operation had been done. The latter case was instructive only in so far as it demonstrated the necessity for a second amputation, because of the immense and unwieldy flaps and useless stump; the necrosed ends of the bones had broken through the integument.

Strumous Disease of the Knee—Amputation—Conical Stump.

J. K., a boy ten years of age, of decidedly scrofulous diathesis, had been troubled with swelling of the knee during several years. The joint discharged through numerous long narrow tracts, above and below the patella, an ill-conditioned, watery, purulent fluid. The limb and the patient were much emaciated, and there were many scars of old fistulous tracts around the joint. Amputation, under ether, was done by the circular method, just above the condyles of the femur, Esmarch's bandage being used.

The stump is a conical one, the granulating end of the bone can be felt at its apex; the skin is retracted unevenly, and about one-fourth of the stump is a raw and granulating surface. This result was unexpected, and was due not to the operative procedures, but to the peculiar condition of the skin as impaired by the cicatricial tissue about the joint. Dr. Baxter remarks, that in a similar case he would allow more flap and amputate higher up on the limb, as the tissues show a tendency to retract and contract like the cicatrical tissue sequent upon burns.

Esmarch's Bloodless Method.

Dr. Baxter does not look upon this method with entire approval. In two cases of amputation of the lower extremity, in which this bandage was used, there was phlebitis, attended by the usual symptoms, and several abscesses in the limb. He is aware that such trouble might have occurred without the use of the bandage, but does not regard these attacks as coincidences, but as due to the method used. He has also had a patient suffer from numbness and pain in the limb, with partial disability, after using the bandage, which had been applied just below the elbow. Another objection to this method is, that pulmonary congestion is caused by expelling so much of the blood from a limb, the size of the leg and thigh, for example. There is a great deal of blood in this extremity, perhaps one-fifth of that in the entire circulation. Where does this blood go, when squeezed out by the rubber bandage? May it not be unsafe to use it in patients with weak pulmonary or cerebral vessels, and cause a congestion, which, in addition to that commonly attendant upon the use of anæsthetics, might be disastrous.

Finally, of this method of Esmarch, Dr. Baxter thinks that no rubber tubing is necessary, as the rubber bandage can so be adjusted as to answer every purpose.

Excisions of Joints.

The practice at this hospital is to limit this operation solely to the elbow and shoulder. A successful case of compound comminuted fracture was cited, where all of the right humerus had been removed, except its distal two inches. The man can now write, lift weights, and bring the forearm upon the chest, at right angles to the body.

Rush Medical College. June 6, 1874. Clinic for Nervous Diseases, by Dr. WALTER HAY. *Multiple Cerebro-Spinal Sclerosis.*

The patient, a man of about thirty-five years of age, exhibits no aberration of sensibility, but there is a slight loss of motor power; hears on the left side only; has strabismus and impairment of sight. There are sharp, darting, hot pains along the spine, extending down the left leg; the muscles are soft and poorly nourished; action of bladder and bowels sluggish. The

temperature of the left side of the body is lowered, due to irritation of the vaso-motor nerves.

In this patient there is a sclerosis—a hyperplasia of connective tissue of the spinal cord, and relative atrophy of the motor fibres; nutrition impaired, but no atrophy of nerve cells. The optic nerve, at its root, is also in this case diseased. It is a sclerosis of the disseminated form, for there are three forms, the diffuse, the cortical, and the disseminated. In sclerosis the lesion is one of motility; and in walking, the toe first touches the ground; while in progressive locomotor ataxy, the lesion is one of sensibility; in walking, the heel first touches the ground. The conductors of motor impulses pass from the brain, along the cord, on the same side as the muscles to which the nerve filaments are distributed. The pathological condition is identical in sclerosis and ataxy, but in one, the lesion is of the anterior column of the cord; in ataxy, the lesion is of the posterior column. The treatment in this case has been the inverse galvanic current to the spine, and faradization of the muscles of the left lower extremity.

St. Joseph's Hospital.

The somewhat remote location of this admirable institution prevents its receiving that attention and patronage at the hands of the people and profession which its excellent management and arrangements and attractive surroundings merit. Under the care of Sister Walberga and five sisters, the hospital has no superior in regard to its large, airy, well lighted, ventilated and heated wards, and well furnished private rooms. Its wide corridors and piazzas, and the extensive exposure to sunlight, promote greatly the cheerfulness and speedy convalescence of patients.

A recent case of considerable interest, was that of a man who fell into a vat of boiling soap. Every part of the man, particularly the right side of the body, was scalded, so much so that considerable of the soft parts of the right side sloughed off. The man was reduced to the utmost emaciation. A diarrhœa proved well nigh fatal; it was checked, after repeated trials of the usual medicines, by drachm doses of tr. catechu, to which fifteen minims of laudanum were added. Lint soaked in a liniment of olive oil, to a pint of which a drachm of carbolic acid was added, was the only treatment externally.

Reports of Societies.

Chicago Medical Society. *Transactions of the Meeting of June* 15, 1874. Reported by WILL T. MONTGOMERY, M.D.

The Society met in regular session in the parlor of the Gault House, President, Dr. Quine, in the chair. Special order for meeting—Report of Section on Materia Medica.

Dr. Millard read a paper on "Ergot as a Therapeutic Agent." In the discussion which followed, Dr. N. S. Davis said the subject is an important one and may be studied with benefit. It is but a few years since ergot was entirely limited to parturient cases, but it is now known to have a specific action upon the ganglionic nerve centres. Whether it has a specific action upon the vascular system except through the nervous centres he is not now prepared to say. He began to use ergot in hemorrhagic cases as many as fifteen years ago. He used it in combination with iron in those cases, with very satisfactory results. Related a case in which he continued its use for a number of months with decided benefit. Some eminent physicians have recommended the use of ergot in cerebro-spinal congestions. He thinks it is more particularly useful in the aplastic cases. It increases the contractility of the vessels of the brain and cord, and thus lessens the congestion. He had not found it to be useful in sthenic cases.

Dr. E. F. Ingals said he had recently had occasion to look up the literature on the subject of ergot and had come to the conclusion that it does not always have a specific action upon the uterus in parturient cases.

Vice-President Paoli said that forty years ago ergot was known in the drug stores of Europe as a remedy for producing abortions, but pregnant women had repeatedly eaten of the bread made of it without experiencing the specific effect. He does not believe much in its specific action, and does not think much of it as a remedy for anything.

Dr. Pierson had not used it much, and does not think much of it.

Dr. Stilliaus had not had much experience with it in labor cases.

He used it in a case of retained placenta, and produced hour-glass contraction. Had used it in combination with iron in uterine hemorrhage with good results.

Dr. Thompson thinks ergot always acts specifically when a good quality is used. Dr. Walton is of the same opinion.

Dr. Gapin was glad to learn that so many are abandoning the use of ergot, and wants to see a more vigorous stand taken against its use in labor. His idea of its action upon nonstriated muscular fibre was not in accordance with his idea of natural labor-pains. The one was continuous, the other intermittent.

The Secretary, Dr. Hutchinson, declared himself a friend of ergot even if it is abused. From his own observations he has no doubt that it produces uterine contractions. He had used it in connection with other remedies in hemorrhages and cerebro-spinal troubles, when it seemed to do good. He is careful in giving it in labor, but thinks, if properly administered, it is a safe and useful remedy, and should continue to use it.

Dr. Etheridge being present, Dr. Earle wished to hear from him upon the action of ergotine. Dr. Etheridge said that ergotine is being extensively used hypodermically in the treatment of uterine fibroids, and with good results. A number of cases have been reported as cured. It acts through the vaso-motor nerve centres, shutting off the supply of blood to the tumor. He thinks the action of ergot has been clearly demonstrated by the experiments for the cure of epilepsy. He referred to quinine as an oxytocic, and related a case in which it seemed to have this effect. A lady, seven months pregnant, was having chills and he prescribed quinine in gr. iv doses, and when he called next day, found she had miscarried. There was no sign of it before the medicine was given.

Dr. Earle referred to a paper on ergotine in the treatment of uterine fibroids, by Dr. Parvin, published in the *American Practitioner*. The hypodermic injection should be used once a day, and was first made in the region of the uterus, but it is found to act quite as well given in any other part of the body.

Dr. C. M. Fitch has discontinued the use of ergot in cases of labor, but has used it with apparent benefit in hæmoptysis. He has had no post-partum hemorrhage for a long time, and thinks it is because he has used stimulants and paid close attention

to keeping the extremities of his patients warm in parturient cases.

The President, Dr. Quine, asked a question as to the distribution of nerves to the uterus and their physiological action.

Dr. Thompson said she could not answer directly, but had observed cases of labor in which the neck of the womb was flaccid, while at the same time there was firm contraction of the body of the organ.

The President further inquired if any one had had any experience with ergot in cases of threatened abortions.

Dr. Fitch had used it in one case, and the abortion was prevented and the case went on to full term.

Dr. Montgomery said he was called to a case of threatened abortion at the end of the third month, and on making an examination found the membranes protruding from the os, and decided that the case was too far gone to arrest. As there was considerable hemorrhage, gave ergot to hasten the expulsion of the fœtus, but it was not expelled while the patient was under observation, about a week, though the hemorrhage ceased and the patient made a rapid recovery. The case was lost sight of, so that he did not know whether she went on to term or not.

Dr. Hutchinson said it was another example of how patients would sometimes recover in spite of the doctor and his medicines.

Dr. Quine had given ergot in one case, but it did not arrest it. He has no doubt of the specific action of the drug, and thinks it is as reliable in its action as neurotic remedy is in its action. The dose modifies its action; small doses producing natural contractions, large doses continuous. When given in moderate doses it produces increased vascular tension. In large doses it first increases vascular tension, but continued relaxes it. He had produced dilatation of the os by large doses, but contraction by small doses.

After some explanations the discussion closed, and after miscellaneous business was disposed of, the Society adjourned.

Meeting of July 6, 1874.

Society met as usual in the parlor of the Gault House, President, Dr. Quine, in the chair.

Order of meeting, reports of cases, and presentation of pathological specimens.

The Secretary being absent, Dr. Graham was elected *pro tem.*

Dr. Strong related the following case, and asked for information as to diagnosis and treatment. The patient, a young lady, 19 years old, always had good health until about one year ago, when she began to feel a stiffness in the calves of her legs. She was attending school at that time, and had to walk considerably, and at first thought the trouble arose from this, but her knees soon began to get stiff, and her legs to draw up, so that in a short time she was unable to walk. Dr. Strong first saw her about four months ago. He found the patient large and fleshy, but her flesh was extremely soft and flabby. Her legs were firmly flexed upon the thighs, but there was no bony anchylosis of the knees, and by persistent effort he was able to extend the legs to an angle of about 45°. He was not able to find the tendons of the hamstring muscles, but found a firm cord in the centre of the popliteal space, which appeared to be the tendons united. There was considerable œdema of the feet and legs, but he thought it was due to the dependent position. Sensibility perfect. The patient has not had any pain, and he was not able to detect any tenderness along the spine. She eats and sleeps well, and says she feels well every other way. Began to menstruate at 16, and was regular until two months before he saw her, since which time she has not had her turns. The Dr. ordered tonic medicines, stimulating liniment, and passive motion, but had found no improvement.

Dr. Mary Thompson suggested pelvic cellulitis as the probable cause of the trouble.

The President thought it more probably depended upon some lesion of the lower portion of the spinal cord.

Dr. Strong thought if the trouble had come from cellulitis the patient would have had pain.

The President referred to a case of cellulitis in which there was very little pain.

Dr. Stilliaus reported the case of a young lady 21 years old, who had been sick since she first began to menstruate seven years ago. She had been under treatment most of this time, but he did not see her until ten weeks ago. He found her apparently well nourished, but complaining of pain and stiffness of one knee, and general hyperæsthesia of the integumentary surface

She was vomiting a good deal; was only able to retain pie and milk. He prescribed anti-emetics, and put extension upon the limb, but not finding any improvement from this treatment, three weeks ago began the use of tonics and electricity. The vomiting has ceased, and the patient is able to walk, but has had a hacking cough for the last four days, and still says she don't eat any. The Dr. said he did not know what her trouble was unless it was hysterical.

Vice-President Paoli thought the case hysterical, and said he had found the tinct. asafœtida and tinct. valerian to act well in such cases.

Dr. E. F. Ingals reported a case of epileptiform neuralgia, with tonic, muscular spasms. He was called about midnight, June 24, to see the patient, Miss B—, about 20 years of age. The messenger informed him she had been suffering from severe cramps of the arms, legs and stomach for three or four hours. He found the patient in bed, apparently suffering but little, and was told she had improved much within an hour. Upon inquiry he learned that she had been suffering from occipital neuralgia of a not very severe type, for several days, the pain commencing late in the afternoon, and continuing three or four hours. The patient stated that during the previous afternoon the pain came on more severe than usual, and was shortly followed by chilly sensations of the feet and legs. These were soon succeeded by cramps of the same parts, then of the hands, and finally of the stomach. Upon examination found the skin cool and moist, pulse slightly accelerated, pupils normal, tongue slightly coated. No vomiting or purging, but bowels open. Some pain, especially in abdomen. The pains had been paroxysmal. Prescribed morph. sulph., gr. ¼ and chloral hydrat, gr. x, to be repeated once in three hours if the convulsions returned. The next day he found her suffering only from moderate headache and soreness of the muscles which had been convulsed. The spasms did not return during the night, but the patient slept little. About a year ago he treated the same patient for obstinate intermittent neuralgia. She lived at the time in a damp basement, with poor sewerage, from which she was finally induced to remove, though not until the neuralgia had yielded to treatment. At that time

quinine and iron utterly failed to give relief, but the patient promptly recovered upon the use of granules of strychniæ sulph., gr. $\frac{1}{16}$ each, given three or four times daily. Subsequently she enjoyed good health until her present illness. Careful inquiry revealed the fact that the old attack had been preceded by tonic convulsions similar to those of the present sickness. Remembering the former treatment, he at this second visit, notwithstanding the convulsions, prescribed strychnia sulph. in granules of gr. $\frac{1}{16}$ each, to be taken four times daily. That evening, about five o'clock, convulsions of the extremities and maxillary muscles again occurred, and lasted about three hours. He called at five P. M., the following day, and found the patient lying on the lounge, feeling very well—no headache, no pain, and a little appetite. He congratulated himself that convalescence had been established, but about nine o'clock of the same evening, a messenger informed him that spasms had again set in about half an hour after his visit, and were still very severe. He found the patient still in the convulsion so far as the hands were concerned, but spasm of other parts had given way. The fingers were firmly flexed by tonic muscular contraction. Inspecting the medicine, he found the druggist had made pills instead of furnishing the granules ordered. Discontinued the strychnia, and ordered morph. and chloral, as before. The following afternoon (27th inst.) ordered zinci valerianas, gr. ss. at a dose, made into pill, with confec. rosae, to be given three times daily. Convulsions, milder than before, occurred that evening. Two days later, he found the patient comfortable, and that she had escaped pains and cramps the previous evening. What was the cause of this sudden cessation of neuralgic pains, and the accompanying convulsions? The valerianate of zinc will be the answer, he thought, of nine out of ten physicians; but not so, for he found that the patient had not taken the medicine, owing to a misunderstanding on her part, about the nature of the pills. The medicine was begun, but not early enough to gain any credit in the case. Two days later, he found her still improving. She had suffered no more cramp, and now wanted to go to the country on a visit of several days. He ordered the medicine continued for a day or two, in doses of gr. j, to be followed by a ferruginous tonic.

The Dr. remarked that the case seemed interesting, in the first place, on account of the convulsions attending an otherwise simple case of intermittent neuralgia. The first question occurring to us is, what caused the convulsions? Doubtless the same cause operating upon the cerebro-spinal axis produced convulsions, which had formerly caused occipital and abdominal neuralgia; but the exact nature of this cause he was unable to state. The patient was neither of a rheumatic or gouty diathesis. She had not been exposed to lead poisoning, and could not be properly called anemic. The pains were distinctly intermittent, and so we might suspect malaria, but when we remember that many nervous affections not dependent upon malaria exhibit an intermittent character, we are still left in doubt. He said it seemed to him as unphilosophical to call every intermittent affection malarious as to commit the common blunder of calling every disease rheumatism, or syphilis, from which the patient recovers while taking iodide of potassium.

Secondly, he wished to call attention to the use of strychnia sulph. in doses of gr. $\frac{1}{16}$. Whether in this instance the druggist was accurate in his preparation, is a matter of doubt. He believes ordinary drug clerks are hardly competent to dispense such active medicines in pills or powders. Therefore when granules prepared by experienced pharmaceutists cannot be obtained, strychnia should be given in solution, notwithstanding its intense bitterness. With regard to the dose, standard authors vary from $\frac{1}{32}$ to $\frac{1}{8}$ of a grain, but they are not always safe to follow. He believed gr. $\frac{1}{16}$ to be too large a dose to begin with, and should not have given it in this case had he not known the patient's previous history, even though he had himself taken gr. $\frac{1}{10}$ three times daily without feeling it. He had in mind a patient suffering from hemiplegia, who for several weeks took about gr. $\frac{1}{20}$ three times a day, but finally had severe convulsions, which immediately subsided when the medicine was suspended. His preceptor once saw a lady who evidently died from the effects of strychnia administered in gr. $\frac{1}{20}$ doses three or four times daily for several days. He believes this remedy possesses a cumulative action. That is, while a given dose may be taken for a considerable time without ill effects, exactly the same dose—and by this he did not mean the same dose from the bottom of a bottle containing a solution of strychnia, which might be

much stronger than that taken from the top, but the same dose of the medicine itself—may suddenly give rise to its toxical effects.

His experience with the valerianate of zinc in this case was purely homœopathic, but to him another caution against jumping at conclusions with regard to the action of medicines. If the patient had taken the medicine before the convulsions ceased, the one out of ten who presumed to doubt its effects would at least have been thought presumptuous.

Dr. C. M. Fitch thought a patient who had once taken an overdose of strychnia remained more susceptible to it for a long time. He gave a patient who had once had an overdose, gr. $\frac{1}{60}$ three times a day, and, after a few doses, got the poisonous effect.—President had not been a believer in the cumulative action of medicines, and thought the trouble, in most cases, was brought about by giving the medicines faster than they are eliminated, and thought this was true of strychnia. He agreed with Dr. Fitch in reference to increased susceptibility.—Dr. Pierson gave strychnia to a patient, who became scared, and presented symptoms of poisoning, but when he gave it in the same dose, disguised, it had no bad effect. —Dr. Strong once gave a patient with Bright's disease two doses of strychnia, gr. $\frac{1}{32}$ each, and the last dose was soon followed by convulsions simulating those produced by it, and the patient died next day. Was not sure whether the convulsions came from the medicine or uremia.—Dr. Taggart had often prescribed strychnia in gr. $\frac{1}{16}$ doses, but had not seen any bad effect from it.—Dr. Earle had recently seen a patient, a hard drinker, who, with suicidal intent, took 400 grs. of chloral hydrat at once, without the desired effect. The following night he took what was purchased for gr. x of morph. sulph., but made another failure. The patient had not been addicted to the use of opium, but as the chloral did not kill him, the Dr. thought he had possibly taken gr. x of morph. too.—Dr. Knox once prescribed 480 grs. of chloral in solution for a case of delirium tremens, and the patient took it all in one night, without any apparent effect. He thought the alcohol antagonized its action.

Dr. Earle reported a case of post-pharyngeal abscess, a sequela of scarlet fever. As this case will soon be published in full, we omit an abstract of it here.

Dr. Fitch presented a specimen of polypoid tumor of the uterus which he had removed from the patient of another physician by means of the galvano cautery. The tumor began to appear about one year ago, and the patient had since suffered from excessive hemorrhage, at times almost fatal. The tumor was attached high up in the canal of the cervix by means of a short, thick pedicle, and, at the time of its removal, was nearly as large as a goose's egg, and of a dark red color. The loop of wire was passed around the pedicle of the tumor, and heated by means of nine large-sized Bunsen cells. The incision was as smooth as if it had been made

with a knife. No hemorrhage followed, and the patient went on to a rapid recovery.

After some discussion as to the nature of the tumor, the Society adjourned.

Chicago Society of Physicians and Surgeons. *Transactions at Regular Meeting, June* 8, 1874. Reported by RALPH E. STARKWEATHER, M.D.

The Society met as usual in the parlor of the Grand Pacific Hotel, the President, Dr. John Bartlett, in the chair.

The following were elected to membership: Doctors M. O. Heydock, H. M. Bannister, H. W. Jones, and D. K. Steele.

The names of Doctors H. A. Johnson and H. K. Newton were proposed and referred.

Dr. Hyde read a paper, "Notes on the Microscopical Appearances of the Brains of the Insane," prepared by Dr. Walter Kempster, of the Northern Asylum for the Insane, at Oshkosh, Wisconsin, formerly of the New York State Lunatic Asylum, Utica. He had made microscopical examinations in forty-nine cases. Numerous slides were exhibited of sections, made mostly through the third left anterior convolution, illustrating the lesions of acute mania, the large sclerous patches in chronic mania, and the dementia of syphilitic paralysis. Numerous micro-photographs were likewise shown, illustrating the lesions of cerebro-spinal meningitis; of numerous colloid masses in the medulal oblongata, and large degenerated masses with dense fibrous investing membrane in the spinal cord, opposite second cervical vertebra, each illustrative of acute mania. The student is met with the stereotyped phrase that there are no lesions discoverable peculiar to insanity. For a number of years Dr. Kempster has been making systematic microscopical study of the brain, examining the lesions of all forms of insanity, from acute mania to dementia, including puerperal and epileptic insanity. In each and every form he has found a marked lesion, so that certain lesions may be grouped together as common to certain forms of insanity, to which lesions any particular type of insanity may be palpably due. Six different forms of degenerations and lesions were elaborately described.

A recess was then taken, during which the Society examined the specimens and micro-photographs.

On motion, a vote of thanks to Dr. Kempster was passed, and he was elected an honorary member of the Society.

The amendment to the constitution offered at the last meeting by Dr. Jackson, was taken up and adopted.

Transactions at Regular Meeting, June 22, 1874.

The Society met at the Grand Pacific Hotel, the President, Dr. John Bartlett, in the Chair.

The members were desired by the President to accept the intimation that the meetings would be called to order, promptly, at eight o'clock. Owing to the absence of Dr. Hyde, Dr. Wood was elected Secretary *pro tem.*

Dr. H. A. Johnson received an unaminous election to the membership of the Society.

The following By-Law was, upon motion of Dr. Hay, adopted:

The privilege of nominating new members to the Society is restricted to the nominating, by each member, of one name, each year.

Dr. Trimble read a paper on Eucalyptus, the substance of his remarks, as he says, being chiefly collected from various articles written upon the subject within the last year or two, in periodical journals; the doctor stating that he had no practical knowledge of the effects of this medicine.

Dr. Wood.—It seems important to remark that when eucalyptus is used in intermittent fever, if it is to prove useful at all, one dose generally accomplishes the desired effect; the fever does not return.

Dr. P. S. Hayes.—The tincture is made stronger in alcohol than the ordinary tinctures; hence, when used with other tinctures it precipitates; it disguises the taste of quinine.

Dr. P. S. Hayes reported a case of multilocular sero-cystic ovarian tumor. Operation, electro-puncture. Recovery. No abstract of this case is made, as it will soon be published in one of the medical journals.

Dr. Etheridge presented a report of a case of corroding ulcer of the uterus. This is a comparatively rare form of ulcer, and its diagnosis in this case is confirmed by the opinions of Drs. De Laskie Miller, Byford, and T. G. Thomas, of New York.

Patient first came under notice July, 1871, and was fifty-nine years of age. She passed the turn of life quite suddenly, in 1860. During the first twelve years after marriage she suffered from menorrhagia, at times so profusely as to prove nearly fatal. This almost wholly disappeared upon bearing children, of whom she had six. In many years of the period of child-bearing, she had *stomatitis materna* severely.

After having had at wide intervals, three hemorrhages, Dr. Etheridge was called to attend the case. No examination being allowed, he ordered a vaginal injection of tannic acid—forty grains to the fluid ounce—to be used as often as necessary. Relief was afforded for four months, but the shock of the great fire in this city renewed the bleeding; the discharges, however, were not offensive. The only pain was a back-ache, a hot, burning pain—not lancinating.

Upon examination per vaginam, the cervix uteri was found half eaten off, the edges of the ulcer being ragged—projecting unevenly; its surface bled upon the slightest touch. Beneath the site of the os, there was an indurated nodular ring, around the vagina, through which the speculum always slipped with a sort of snap or jerk. Uterus movable; pelvic glands and viscera normal. A solution of the pernitrate of iron temporarily checked the hæmorrhagia, and afforded the longest interval of freedom from hemorrhage. Other styptics were used—carbolic acid and tannin, and chromic acid; injections of the latter produced pain, often vomiting, but checked the bleeding. Fifteen grains of the chromic acid, in a tea-cup of warm water, seemed to be the minimum strength that was efficacious in this case. There were, at length, three months of freedom from hemorrhage. Gradually, there came on vesical trouble, and a distressing feeling in the stomach, followed by bleeding. The tissues contiguous to the ulcer now became infiltrated and indurated, probably lessening hemorrhage; the vagina was well nigh filled with these growths; there was the usual cancerous cachexia. Morphine was used to allay pain, the latter weeks of life. No necropsy allowed. Remedies for constitutional treatment were used, such as arsenious acid, red clover, iodine, cundurango. Prof. Schiff's treatment of uterine cancer was tried—pancreatine solution, with the view of dissolving the cell of the ulcer, with no satisfactory result attributable to pancreatine.

Very particular attention was called to a point in the history above given, not alluded to in books or lectures—*the nursing sore mouth of the mother* during lactation, who, *later in life, suffered also from malignant disease.*

The cases of two other women were cited, who died after the menapause from malignant disease, having in former years suffered from nursing sore mouth. *Is there any connection or dependence between these two conditions?* If there be, what course ought the physician to pursue, with the view of preventing the development of malignancy in later years of life?

Dr. Wood stated that he knew of a family of three sisters, all of whom have had stomatitis. Two of them, in later life, died of internal cancer; the third is now sick with the same disease.

Dr. Hay suggested that a table of statistics could be written, with the inquiry made by Dr. Etheridge kept in view; and it would be important if such a relation between stomatitis materna and forms of malignant disease could be established.

Dr. Etheridge had spoken to many of the older physicians who had given many instances similar to that of his case. The point is, whether this relationship can be established in all or sufficiently numerous cases.

Dr. Trimble reported a case of epilepsy in a boy of four years of age, probably due to injuries received twenty months previously, by a railroad accident. Of late, the seizures had increased in

frequency, severity and mental disturbance. To eliminate the idea of worms being an exciting cause, appropriate treatment was adopted, and a few expelled. The potassium bromide was given in four grain doses, three times a day; but there were still as many as twenty convulsive attacks daily. Belledonna was given with the bromide. The cerebral condition soon became such, that despite the usual practice and opinion I felt obliged to bleed, and placed four large leeches on the temples, drawing at least six fluid ounces of blood. The dose of the bromide was increased to eight grains; iron and bark were also given. The patient had no more seizures after the third week from the date of bleeding.

Dr. F. H. Davis, in behalf of Dr. Andrews, presented nine renal calculi, taken from one patient by Dr. Andrews.

Dr. Walter Hay, in behalf of Dr. Ben. C. Miller, exhibited a catheter which he had devised for the purpose of making medicated applications to the urethra and other tracts. It was a simple silver catheter, with a stylet having a bulbous point, just below which a piece of medicated sponge was folded. In the stylet, near the handle, a thread was cut, upon which revolved a disc; the stylet could thus be pushed forward out of the sound to the desired distance and object of treatment, or the sound withdrawn upon the stylet, and the medicated sponge, lying next the bulbous point, could be applied wherever desired.

Upon motion, the Society adjourned.

Transactions at Regular Meeting, July 13, 1874.

The Society met as usual, in one of the parlors of the Grand Pacific Hotel, Dr. Jno. E. Owens, Vice-President, in the chair.

Dr. A. K. Norton was unanimously elected a member of the Society.

The notice of the paper read at the last meeting by Dr. P. S. Hayes on "Multilocular Sero-cystic Ovarian Tumor," should have stated that the operation of electro-puncture resulted in complete recovery.

Dr. Hyde read a report of a case of variola, modified either by antiseptic treatment or previous protection, of which the following is a brief summary:

The patient, a boy of five years of age, was seen by Dr. Hyde the second day of his illness, and had high fever, pulse, 130, temperature, 105.5° F.; constipation, coated tongue, sleeplessness and jactitation. The cheeks were suffused with a damask stain, with well-defined limits on every side; no redness of the fauces, sore throat or coryza. The boy had been vaccinated in early infancy, but upon inspection of the arm I discovered a single punctate cicatrix, such as might have resulted from a wound of the arm by a shoemaker's awl.

On the fourth day a complete defervescence occurred. A gen-

eral eruption then appeared, gradually extending and invading the palms of the hands, the soles of the feet, and the pharynx; rapidly passed through the stages of pimple and vesicle, until a well defined umbilication occurred, vesicles generally discrete; the odor of small-pox was perceptible.

Some two years ago the attention of the profession was attracted to a form of treatment by antiseptic solution, first reported in a medical periodical of Canada, and largely copied by home journals. It consisted of carbolic acid, dr. j; of Squibb's pure medicinal sulphite of soda, dr. x; and f. oz. vj of water. Dose, children, one-half to one drachm; to adults, a tablespoonful, every three hours. Externally, a solution of carbolic acid (dr. ij), to glycerine (oz. iij). A febrifuge was also advised, of potassa chlorate, spts. nitre, and liq. ammonia.

Dr. Hyde employed the above treatment, modified, and on the sixth day of this patient's disease ordered: R. Acidi carbolici cryst., dr. j; sodæ sulphitis (Squibb's pure medicinal), dr. x; aq. menth. piperitæ, aq. puræ, *aa* f. oz. iij. M. Sig. one teaspoonful every three hours, day and night.

The external lotion was made of less strength, and modified thus: R. Acidi carboli, dr. j; glycerine, f. oz. iv. M. and use on the exposed parts of face and neck.

The result was as gratifying as surprising. Seventy-two hours afterwards, the ninth day of the disease, the little patient seemed practically cured of his malady; the eruption had everywhere subsided; no intumescence of the skin between the vari; the itching of the skin was very slight, and the child was dressed and at play. The subsequent history of the case is that of perfect restoration to health.

Dr. Hyde then alluded to the eight varieties of varioloid spoken of by Dr. Aitken, contrasting the present case with them, and developed several interesting points and deductions, and, in conclusion, said that there is as much evidence to show that the sulphite of soda is capable of controlling variola as there is in favor of the remedial influence of the transfusion of blood; it should be carefully and faithfully tried in each case.

In remarking upon Dr. Hyde's use of the sulphite of soda, Dr. Chapman said that two years ago, at Ann Arbor, they had quite a siege of small-pox in the college, during which the patients were put under treatment by the sulphites with great success. Those treated as soon as the attack became apparent were greatly benefited; the disease was modified in severity, there was no eruption on the palms of the hands or the soles of the feet, though the patients had never been vaccinated. The sulphite of soda and the sulphite of magnesia were used, a drachm of either salt in a glass of water, drinking of the same from time to time. A strong lotion of carbolic acid was used. The pitting was severe in two cases only.

Dr. F. H. Davis.—Was carbolic acid exhibited internally?

Dr. Chapman.—It was not; but a carbolic acid gargle was us in some of the worst cases.

Dr. F. H. Davis.—I had supposed that the use of the carbol acid internally had as much to do in contributing to successf results and relief as the sulphites. I have tried the sulphites i three or four cases, and none died, though two cases were of th confluent variola. The attack did not seem to be aborted; ther was some pitting in the confluent; used no carbolic acid exter nally.

By the President.—It is to Dr. A. Fisher the profession is in debted for establishing the dose of the sulphites. It is usual given in too small quantities, at too infrequent intervals. Dr. Blake, in 1864, reported to the American Medical Association a case of pyemia with pneumonia, pleurisy and endocarditis, with comp. com. fracture of the tibia. He had ordered drachm doses every four hours: at the end of thirty-six hours the patient had recovered from the pyemia; it was discovered, however, that four drachm doses of the lime sulphite had been given instead of drachm doses. The medicine should be given some time, to prevent relapses.

Dr. Fisher.—I have frequently given one ounce of the soda sulphite in twenty-four hours: even an ounce and one-half. The ordinary lime sulphite of the shops is totally unfit for use: that made by Dr. Squibb is the most suitable. In diarrhœa and cholera, a half drachm of lime sulphite may be given every four hours; have never seen bad effects in the use of the sulphites, and think I have aborted many cases which otherwise might have been fatal. I give it in every disease of a septic nature. In one case there was an infant in whom vaccination did not take. I gave the sulphites, and no eruption followed. Sulphite of soda may be given with peppermint water, in an emulsion; it is not distasteful to children. The soda is preferable in case of constipation. The sulphites are of no benefit in inflammatory diseases.

Dr. Andrews thought the sulphites were given too timidly. You must saturate the patient with the drug. Small doses are not so efficient as large doses.

Dr. Andrews then addressed the Society in partial review of the Report of the Supervising Surgeon of the U. S. Marine Hospital Service, comparing the same with a study of the cases in hospitals of London and Paris.

The only subject alluded to was that of the diseases of two races—the Teutonic and Negro, of this country; and the Teutonic (English) and Gallic race (French) of Europe; and also of their different physiognomy and facial angle, and measurements. His conclusions, in brief, were that the British Teuton, as compared with the Gallic Parisian, is prone to alcoholic disease:

the latter to venereal diseases. Some attribute the difference to influence of climate and food.

In this country we have the two races side by side, and in the same relation as to climate and food: say for the past three hundred years they have grown side by side.

In the Marine Hospital Report, the colored sailors, by a large percentage, are under treatment for venereal diseases, while of the whites much the larger percentage is in for delirium tremens.

Dr. Hay.—There is one view Dr. Andrews has omitted to take which a close observation of the negro race for twenty-seven years has led me to adopt. In the Teuton, the tendency to drink is partly hereditary; the negro in service has been kept sober, regular and steady in habits, and probably his freedom from alcoholism is due to this exemption from hereditary alcoholism. I mean the transmission of certain modifications of the nervous system, due to the continued use of alcoholics, by successive generations.

Dr. Andrews did not doubt this, but had never been able to satisfy himself as to the degree of exemption.

The President read a deferred paper on a means of facilitating the introduction of Barnes' dilators. The devices of Skene and Bishop were referred to, and the means suggested were offered as additional to these.

Dr. Bartlett's plan consisted in the rolling up of the ordinary dilator about the supporting rod or tube, and the maintenance of it in that state of compactness, till the introduction was effected, by means of a cord or tape, adjusted about it in such a manner as permitted of the ready release of the bag from the coils of the string. The dilator having been exhausted of air by suction with the mouth, is compactly rolled up on its long axis, and secured in this state by a temporary string at each end. A piece of wire, as a small stylet from a catheter, is then laid parallel with the bag and its supporting staff. The wire, bag and staff are then lashed together by what Dr. Bartlett called a key-wire stitch. The cord is first tied around the wire, at a point corresponding to the tube end of the dilator, it is then passed under, and then over the bag and staff, and then placed under the wire, and looped over it, the direction of the string being thus reversed. The cord is now carried under and over bag and staff, in a direction contrary to that of the first stitch, and is again carried under the wire and looped over it as before. This process of binding the bag on to the staff by looping the string over the wire, is continued till the dilator is lashed to the staff in nearly its whole extent. The stitch is ended off by taking several looped turns over the extremity of the wire, this latter is then withdrawn, so that its end rests concealed just below the presenting extremity of the bag The temporary strings are removed as the stitch is being made, or afterward. The dilator being introduced, the string is discharged

from it by withdrawing the key-wire. Any form of cord will answer the purpose, but very narrow tape, oiled, is the most suitable; the lashing should not be too tight. Dr. B. thought it probable that this stitch might be usefully employed for other obstetrical or surgical purposes.

The meeting closed with the presentation of a testimonial by Dr. Hay, in behalf of many members of the Society, to Dr. Hyde, the Secretary, of a set of Gouley's Sounds, and a Mott's Speculum, in recognition of that officer's long and faithful services to the Society.

Æsculapian Society of the Wabash Valley. *Proceedings of the 29th Semi-Annual Meeting.* Reported by G. T. RAGAN, Secretary, Neoga, Ill.

By invitation of the Clark County Medical Society, the Æsculapian Society met in Marshall, Ill., May 27th, 1874.

At 10 A. M. the meeting was called to order by the President, Dr. J. D. Mitchell, of Terre Haute, Ind. By request of the President, Rev. E. M. Pilcher offered prayer.

The minutes of the last annual meeting, held at Paris, Ill., were read by the Secretary, and approved.

Sixteen members were present, viz: W. M. Chambers, Charleston, Ill.; W. S. Goodell, Effingham, Ill.; N. S. Freeman, Campbell, Ill.; J. L. Hays, Paris, Ill.; Wm. Massie, Grandview, Ill.; J. D. Mitchell, Terre Haute, Ind.; D. O. McCord, York, Ill.; A. J. Muller, Paris, Ill.; W. S. Martin, Tuscola, Ill.; J. M. McKown, Arcola, Ill.; G. T. Ragan, Neoga, Ill.; M. Rowe, Dudley, Ill.; J. M. Steele, Grandview, Ill.; John Tenbrook, Paris, Ill.; J. Washburn, Tuscola, Ill.; L. J. Willien, Terre Haute, Ind.; and during the session eleven new names were added to the roll, after presentation in due form and an examination by the Board of Censors, viz: O. C. Tobey, Westfield, Ill.; A. K. Mosely, Grandview, Ill.; R. C. Prewitt, Marshall, Ill.; S. F. Storer, Darwin, Ill.; R. F. Williams, Casey, Ill.; Simon Jumper, Darwin, Ill.; W. H. McNary, Martinsville, Ill.; D. C. Nicason, Melrose, Ill.; A. T. Steele, Ashmore, Ill.; Jas. M. Barlow, Westfield, Ill.; R. C. Bradley, Marshall, Ill.; making, in all, a membership of sixty-two.

An address was delivered by Rev. Mr. Pilcher in behalf of the Clark County Society and citizens of Marshall, welcoming the Society to the hospitalities of their city. This address was responded to, in behalf of the Æsculapian Society, by Dr. William Massie, of Grandview, Ill., in his peculiarly happy manner.

On motion of Dr. McKown, the following members were appointed a committee to report resolutions expressing the feelings of the Society in reference to the death of Dr. F. R. Payne, viz: Drs. Chambers, Tenbrook and McCord.

After the usual preliminary business and dinner, the Society listened to a paper on "Cerebro-Spinal Meningitis," by Dr. L. J. Willien, of Terre Haute, Ind. On motion, the paper was received, and ordered to be filed. The following is a synopsis of this paper:

On the uncertainty of the epidemy of the said disease, since it is often mistaken for other diseases in malarial districts, having cerebral or cerebro-spinal complications. The disease has two well-marked forms, malignant and sporadic; the former ending fatally, and the latter being, most of the time, curable. That the disease is of an inflammatory nature, with serous exudation, is shown by post-mortems. Symptoms vary in gravity according to the idiosyncrasy of the patient and complications with other diseases. The main object of the practitioner is to understand fully the symptoms of cerebro-spinal meningitis and the diseases with which it is apt to be complicated.

A table of differential diagnosis is then given between the malignant epidemic and sporadic forms. The treatment indicates no special remedies, with the exception of the use of quinine, belladona, ergot, bromide potassium, and calabar bean, these remedies having undoubtedly given most satisfactory results.

The paper is closed with a report of a genuine case of cerebro-spinal meningitis, sporadic form, terminating favorably.

Dr. D. O. McCord has had a great many cases on the Wabash; considers them inflammatory in character, uses large purgatives, calomel and ipecac, followed by tonics. If he could get reaction, could save his patients.

Dr. Mitchell has always considered it very difficult to make a diagnosis, or, rather, all the true conditions are not met with in any case. Takes the ground that it is a malarial disease—rheumatic. Many of the attacks are similar to our malarial or congestive fevers. Most of the cases had contraction of the muscles. Some years ago had quite an epidemic of this disease. All died but one, which was treated by ten grain doses of quinine. Would use active emetico cathartics at first, but no purging afterwards.

The disease is not inflammatory in its inception, but may become so afterwards. The recent epidemic was very violent in form, and not the same disease as spotted fever.

Dr. J. L. Hays, of Paris, Ill., Chairman of the Committee on Surgery, made a report of cases in his own practice.

1ST CASE—Organic stricture of urethra in a male; relieved by operation.

2ND CASE—Obstruction of the trachea by coffee grain; successfully relieved by tracheotomy.

3RD CASE—Cataract of right eye, with chronic irido-choroiditis, supervening on an operation previously made for cataract on left eye. The operation of enucleation of the left eye, with a subse-

quent operation for cataract on the right eye, succeeded in opening the eye of the blind.

4TH CASE—Extirpation of the eye-ball.

In connection with this report was a case of acute necrosis of the tibia, reported by the Secretary, with natural expulsion of the bone entire.

The report was discussed by Drs. Chambers, Willien, McKown and Miller. Dr. Hays remarked a difference in periostitis and erysipelas in diagnosis. Erysipelas is always preceded by a chill.

Dr. Willien read a report of a case of perforation of the bladder, followed by recovery. The case was one requiring great skill in treatment, and the doctor's report was full and satisfactory. Dr. W. also reported an interesting case of uterine hemorrhage, appearing after five and a half months' gestation, caused by detachment of placenta. Premature delivery, favorable to both mother and child. A motion prevailed to file, with a vote of thanks to Dr. Willien for his papers.

In the absence of any report on practical medicine, a random talk was had. Dr. Massie raises the question whether we have any cholagogues.

Drs. Steele, Tenbrook and Chambers think we bleed too seldom Dr. James Madison would quit the practice if his lancet were taken from him. Dr. Massie would not bleed under any circumstances because it is not fashionable.

A case was introduced by a resident physician for examination by the Society. A committee was appointed to examine the case and report. Committee—Drs. Hays and Willien—report the case staphyloma of the eye, caused by purulent ophthalmia. Case requires very mild treatment—weak solution of sulph. of zinc or nitrate of silver. Let the eye get well, and then excise the staphyloma and put in artificial eye.

In remittent fevers Dr. Steele advocates active catharsis with calomel. Dr. Massie objects to this, because it makes an unusual drain on the portal system. The presence of bile in the dejections is brought about by broken doses of calomel. If the object was to act on the bowels, would give large doses.

Dr. McCord would give an active dose at first, fifteen to thirty grains of calomel to an adult; then four grains of sulph. quinine every four hours.

Dr. A. J. Miller would not give calomel in large doses, if at all If the tongue is white, don't give calomel, but give alkalies, *quinine as an alterative.*

Dr. McKnown does not believe in scouring out a man every time he gets sick. Gives thirty grains of quinine a day.

Dr. Massie—in every day ague it is questionable whether to give calomel or not—thirty grains of quinine before the next paroxysm.

Dr. McCord does not give large doses of quinine because he does not think such an effect on the nervous system is required; twelve to fifteen grains is sufficient for him to break up the paroxysm after first moving the bowels freely.

At 8 P. M., Dr. John M. McKnown, of Arcola, Ill., delivered a lengthy and eloquent address. Subject: "Temperance," as viewed from the stand-point of a physician.

On motion, a vote of thanks was tendered the Doctor for his very able address, with a request that a copy be furnished the Society for publication.

After the address the members were furnished complimentary tickets to a supper prepared by the Clark County Medical Society.

The remainder of the evening was delightfully spent in cultivating the spirit of conviviality with the good people of Marshall.

The following toast was read: "The Æsculapian Society, the oldest and most useful medical society in the State," which was responded to by the President in a very happy speech, referring to the origin of the Society, its progress, present prosperity, and its future prospects.

May 28, 7 A. M. The following resolutions were unanimously adopted:

Resolved, That this Society hails with pride and admiration the medical educational institutions of our great State of Illinois.

Resolved, That while we entertain the most catholic views toward medical colleges of sister States, we know of none possessing superior facilities in the West, both in regard to clinical instruction and able medical teaching.

Resolved, That jealousy and rivalry are as reprehensible in medical schools as in individuals, and that we will discountenance and frown down any attempt, on the part of one school, to supercede a sister school in any other way than by genuine merit.

Resolved, That we believe the growing interests of the State requires and will sustain two medical schools in Chicago, and that we can conscientiously commend the Rush and Chicago Medical Colleges to such as desire a thorough medical education.

The following are the chairmen of the standing committees: John L. Hays, Surgery; Mark Rowe, Practical Medicine; P. H. Barton, Midwifery.

Appointed to write on special subjects for the next meeting: A. J. Miller, Syphilis and Chancroid; Z. T. Baum, Special Pathology and Therapeutics; J. L. Hays, the Ear; J. M. McKown, Is Rheumatism Zymotic? L. J. Willien, Eliminatives in Disease; D. O. McCord, Malarial Diseases; E. B. Cannon, the Eye; W. S. Martin, Bright's Disease; A. K. Mosely, Pathology of Remittent Fever.

The following preamble and resolutions were read by Dr. Chambers, chairman of committee, and on motion were unanimously adopted, after appropriate remarks by the chairman of committee and other members of the Society, showing the high estimation of the character and worth of the deceased:

WHEREAS, It has been ordained by the All-Wise Dispenser of life and death that since the last annual meeting of this Society our justly distinguished brother, FLEMING RICH PAYNE, M.D., of Marshall, Illinois, should be removed from his career of usefulness, and intense mental and physical labor, to that state of existence where reigns perpetual peace and repose—where sickness and anguish have no abiding place; and whereas his life was morally blameless, and his connection with this Society shed a lustre upon the organization; therefore

Resolved, That by the death of Dr. Payne this Society has lost one of its oldest and best members, the medical literature of the State one of its ablest contributors, the profession at large the teaching and example of a thoroughly scientific physician, and a most worthy Christian gentleman.

Resolved, That a copy of this preamble and resolutions be presented to the members of his greatly bereaved family by the Secretary, that they be entered upon the records of the Society, and published in the CHICAGO MEDICAL JOURNAL.

W. M. CHAMBERS,
JOHN TENBROOK,
D. O. MCCORD,
Committee.

Dr. William Massie read his paper on Insanity, which was listened to with profound attention throughout, and was discussed by Drs. Chambers, Steele and Rev. Mr. Pilcher, all conceding the ability and research exhibited by the writer.

It would be difficult to give a synopsis of this paper without reproducing the whole, but the following is a summary of its conclusions:

1. There are degrees of responsibility in the insane.

2. Insanity does not necessarily acquit of responsibility, though it should be regarded as a mitigating circumstance.

3. No unexceptionable test of responsibility can be laid down, therefore each case should be decided for and by itself without reference to precedent.

4. The jury *alone* should determine the degree of responsibility of each concrete case upon testimony.

5. Three questions arise in every alleged case of insanity:

First. Is the accused insane?

Second. If so, is the alleged crime the legitimate product or out-come of the insanity?

Third. To what degree is the accused responsible for his act?

6. The medical expert *alone* is competent to testify on the first question.

7. Moral insanity, without impairment of the intellectual faculties, is a species of depravity, and should not acquit of crime.
8. Drunkenness is insanity, and should sometimes acquit of crime; at other times should be regarded as a mitigating circumstance.
9. Voluntary drunkenness is therefore itself a crime.

Drs. Ragan, Massie and Steele were appointed a committee to correspond with medical journals of Chicago in reference to the publication of valuable papers and transactions of the annual and semi-annual meetings of the Society.

A vote of thanks was tendered to the Clark County Medical Society, the citizens and Methodist Church of Marshall, for their courtesy, liberality and elegant entertainment.

Many other things of importance were brought before the meeting, but not of so general a character as to be published.

Neoga, Illinois, was selected as the place of holding the next annual meeting, which will be the 18th and 19th of November, 1874.

Editors' Book Table.

NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.

A Conspectus of the Medical Sciences, Comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery and Obstetrics, for the use of Students. By HENRY HARTSHORNE, A.M., M.D., Professor of Hygiene in the University of Pennsylvania, etc., etc. Second Edition. Enlarged and thoroughly revised, with four hundred and seventy-seven illustrations. Philadelphia: Henry C. Lea.

This is perhaps the best book of its class which has hitherto appeared; it is full, complete and well arranged. Designed for the use of students, it is, however, liable to abuse by this class of readers, in supplying to them a ready method of cramming for examinations. This fact constitutes the basis of our objection to this entire class of manuals, and with this fact in view our endorsement of the book must be qualified thereby. H.

An Introduction to Physical Measurements, with Appendices on Absolute Electrical Measurements, etc. By Dr. F. KOHLRAUSCH, Professor-in-Ordinary at the Grand-Ducal Polytechnic School at Darmstadt, and formerly Professor of Physics at the University of Gottingen. Translated from the Second German Edition, by THOMAS HUTCHINSON WALLER, B.A., B.Sc., and HENRY RICHARDSON PROCTOR, F.C.S. New York: D. Appleton & Son. 1874.

The scientific physicist or chemist will find in this little treatise an invaluable hand-book for the laboratory, and while there is much that is both valuable and interesting to the physician, using the term in its ordinarily restricted sense, its thorough appreciation demands a degree of proficiency in mathematical science which is acquired by very few medical men. Indeed, while the processes for the determination of physical measurements are most of them examples of conscientious labor and models of scientific accuracy, they concern matters too minute, and involve investigations too delicate, to come within the scope of the practical physician in his daily routine of duties. But of this class, even, those who have the time to devote to it will derive much valuable instruction from its pages. H.

Electro-Therapeutics: A Condensed Manual of Medical Electricity. By D. F. LINCOLN, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874.

One of the best manuals of electro-therapeutics hitherto published. It is an effort in the right direction, to reduce order out of chaos, and to deduce some general principles of application from the heterogeneous mass of empiricism commonly denominated electro-therapeutics. The work is comprised in eight chapters: Physical Laws of Electricity; Modes of Generating It; Physiology; Diagnosis; Modes of Application; Medical and Surgical Practice; Cautions; and Apparatus. They will be found comprehensive, and yet concise, and bear the impress of a mind practically familiar with his subject. H.

NEW JOURNALS.

The present season has thus far been prolific in additions to the periodical professional literature. Amongst these *The Archives of Electrology and Neurology* occupies a conspicuous position, not

only from the novelty of the field which it proposes to occupy, being the first legitimate effort in that direction in America: but likewise from the deservedly eminent position held by its Editor, Dr. Geo. M. Beard, in this department of scientific inquiry. Under the editorship of so able an investigator, and so accomplished a teacher as Dr. Beard, we have the right to expect a journal of a high order of merit, which will become the medium for the presentation to the profession of what is true and reliable, and the exposure of what is fallacious in this terra incognita of electrology. The literature of electricity, more especially in its therapeutical relations, is becoming voluminous, although by no means proportionately perspicacious. To digest this mass will become one of the most important functions of a journal such as this, in the performance of which it will render a signal service to the reading portion of the profession. The hopelessness which has hitherto oppressed the minds of practical men, in regard to the successful treatment of many forms of nervous disease, in view of the brilliant successes attributed to electrical influence in some of these forms, has given place to a spirit of credulity which demands both direction and repression, and this, too, will become one of the duties of Dr. Beard's Archives. The present No. justifies our expectations; it is creditable alike to both editor and publisher. It would give us pleasure, did time and space permit, to notice its contents in detail. We shall take the liberty hereafter to draw freely upon them for the benefit of those of our readers who may not be so fortunate as to become its subscribers.

H.

In the *Psychological and Medico-Legal Journal*, we prefer to claim an old friend returned to the work after a short absence, in a somewhat modified garb, than an entirely new acquaintance. It was with great regret that we chronicled the cessation of the publication of Dr. Hammond's Journal of Psychological Medicine, from whose pages we have drawn many lessons both pleasant and profitable, and it is with much pleasure that we welcome the advent of its legitimate successor to a field of professional literature largely unoccupied. In this field, the new journal will, of course, from the established reputation of its editor as an authority in psychological medicine, assume the most conspicuous position, and will be gladly welcomed by all students in this

department of medical science. The new is somewhat more comprehensive in its scope than the old journal was, since it is intended to include the department of Medical Jurisprudence, which is by no means as attentively regarded by the majority of the profession as it deserves. The present issue is designed to be a monthly instead of a quarterly as in the former case, which change in form is asserted by the editor to be in opposition to his own judgment, and only a concession to that of his friends. It contains the address of the editor, upon assuming the presidency of the New York Neurological Society, upon the "Effect of Alcohol upon the Nervous System;" the Laws of Topographical Diagnosis, in Chronic Diseases of the Nervous System, by Moritz Benedict; the Proceedings of the N. Y. Neurological Society; and Reviews; all of which will be found interesting. The Editor is assisted by Dr. T. B. Cross. The Publisher, F. W. Christern, 77 University Place. The local agents, Messrs. W. B. Keen, Cooke & Co.

Another new candidate for periodical honors appears from the South, in the shape of "*The American Medical Weekly*," edited by Dr. E. S. Gaillard, of Louisville, Ky. Dr. G., so long and favorably known to the medical profession as the editor of the *Richmond and Louisville Medical and Surgical Journal*, one of the largest and best of our cotemporaries, must be endowed with much more than his fair share of energy and industry, who can, while already conducting a medical journal of no mean pretensions, thus undertake the conduct of another; who in no dread of monthly, braves the terrors of weekly visitations of the Devil (Printers.) We can only wish for ourselves that his industry were transmissible through the mails. We can pay both journals no higher compliment than the Horation "Mater pulchra filia pulchrior." H.

From the antipodes comes the *Australasian Medical and Surgical Review*, giving us a peep at the sayings and doings of our professional brethren in "isles of the sea." The No. before us, the 7th, vol. 1, contains interesting original articles upon Leucorrhea, Diarrhea, and Anæsthetics, showing the profession to be well up to the times in the antarctic world; Extracts, and Items; from the latter of which which we are glad to learn the Christian spirit pervading the profession, as demonstrated by the omission of the

meeting of the Victoria Medical Board on Good Friday—an example worthy of imitation.

Its columns contain also the results of the Examination at the University of Melbourne, from which it appears that the course of medical studies extends over a period of five years—another good example, still more worthy of imitation. H.

BOOKS RECEIVED.

Inflammation of the Lungs, Tuberculosis and Consumption. By LUDWIG BUHL. New York: G. P. Putnam's Sons, Fourth avenue and Twenty-third street.

Electro-Therapeutics; A Condensed Manual of Medical Electricity. By D. F. LINCOLN, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874.

PAMPHLETS RECEIVED.

Catalogue of the Officers and Students of the University of Virginia. Fiftieth Session, 1873–74.

Fifteenth Annual Announcement of the Miami Medical College of Cincinnati. Session of 1847-5.

Electrolysis in the Treatment of Stricture of the Urethra. By ROBERT NEWMAN, M.D., New York.

Thirty-third Annual Announcement of the St. Louis Medical College. Winter Session, 1874–5; and Catalogue for 1873–4.

Transactions of the Minnesota State Medical Society, 1874. St. Paul.

Medical Problems of the Day. The Annual Discourse before the Massachusetts Medical Society, June 3, 1874. By NATHAN ALLEN, M.D., LL.D., Lowell, Mass.

Transactions of the Kentucky State Medical Society, 1874.

Inorganic Cardiac Murmurs. By A. T. KEYT, M.D., Cincinnati.

Fifty-fourth Annual Announcement of the Medical College of Ohio.

Report of the Quebec Lunatic Asylum, 1872–3.

Twenty-fifth Annual Announcement of the Medical Department of the University of Nashville.

Diseases of the Conjunctiva. By DUDLEY S. REYNOLDS, M.D., Professor of Ophthalmology and Otology in Louisville Hospital Medical College, Louisville, 1874.

JOURNALS RECEIVED.

The Atlanta Medical and Surgical Journal—July.
" Australasian Medical and Surgical Journal, Melbourne—April.
" American Journal of the Medical Sciences—July.
" American Practitioner, Louisville—July.
" American Medical Weekly—Vol. 1, No. 2.
Boston Journal of Chemistry—July, and Index.
Boston Medical and Surgical Journal.
The Clinic, Cincinnati—June 20, 24, July 11.
Cincinnati Lancet and Observer—July.
Druggists' Circular—July.
Detroit Review of Medicine and Pharmacy—July.
Le Gazette Medicale de Paris—No. 21.
The Indiana Journal of Medicine—June, 1874.
London Lancet—June, 1874.
The Medical Times, Philadelphia—June 20, 27, July 1.
" Medical and Surgical Reporter, Philadelphia—June 20, 27, July 4, 11.
" Medical Examiner, Chicago—June 15, July 1.
" Medical Record, New York—June 15, July 1.
" Missouri Clinical Record—July.
" Medical Press and Circular, London—June.
" Medical Mirror, New York—July.
" Medical News and Library—July, and Supplement.
" Medical Herald, Leavenworth—July.
" Northwestern Medical and Surgical Journal—July.
" Nashville Journal of Medicine and Surgery—June.
" Peninsular Journal, Detroit—March and July, 1874.
" Pharmacist, Chicago—June, 1874.
Le Progres Medicale—March 23, 30, June 6, 13.
The Practitioner, London.
" Physician and Pharmacist—May.
La Reforma Medica Periodico Oficial, Madrid.
The Richmond and Louisville Medical Journal—June.
" St. Louis Medical and Surgical Journal—July.
" Southern Medical Record—June.
" Virginia Medical Monthly—July.

Editorial.

" One More Unfortunate."

The notorious " Dr." Earll once again, for the twentieth time (more or less) has the opportunity to contemplate the outside world, from the inside (right side) of the jail-bars. A neighbor of his once earned the soubriquet of the " great unshot." Might not Earll, with still greater propriety, be designated as the great unhanged? As the case stands now, he is certainly the most persecuted individual that ever attempted to obliterate the evidences

of human frailty with a bougie. Three times within less than six months, and how many times before that we have forgotten, have the minions of the law seized upon their victim, dragged him before coroners' juries, charged him with murder, double murder, for against such, single murders are not counted,—locked him behind prison bars, and what? — set him free, in order to play over again the same farce.

Years ago this man was charged by his own wife, under oath, with the crime of abortion, and with the added enormity of burning his own aborted child, piece-meal, in the stove. Here were two possible crimes suggested, of which one must necessarily have been committed, murder or perjury. If the woman told the truth, the man should have been hanged for murder; if she lied, she should have been sent to the penitentiary for perjury. Does the law encourage these crimes? it would seem so, since here is one or the other positively proven, and yet the allotted punishment is withheld.

And now, in the present case, a perfect net-work of crime is displayed: Adultery, perjury upon perjury, shamelessly admitted before the coroner's jury; murder, double murder, more perjury, flagrant violations of known laws, more perjury—and yet out of all this crime no specific act will be fixed upon any one, and no one will be punished. The actors will be turned loose to prey upon society, and juries will try to stifle their consciences with the hard-strained plea that they have "well and truly tried the case," "so help them God," which last prayer should be rather "God help them."

[NOTE.—We are indebted to the kindness of Prof. E. L. Holmes for the original of the following circular, which we translate entire for the benefit of our readers.]

Periodical International Congress of the Medical Sciences.
Fourth Session. Brussels, 1873.

STATUTES AND PROGRAMME.

In order to carry out the decision made by the Medical Congress of Vienna, on the 6th of September last, designating the city of Brussells as the locality of the next meeting of the Periodical

International Congress of the Medical Sciences, a Committee of Organization was appointed. This committee—composed of M. Vleminckx, President of the Royal Academy of Medicine of Belgium, President; M. Deroubaix, Vice-President (acting); MM. Bellefroid and Crocq, Ex-Vice-Presidents, members; and M. Warlomont, Secretary—has arranged the statutes and programme of the meeting as follows:

ART. 1. An International Medical Congress shall meet at Brussells, on the 19th of September, 1875, under the auspices of the Government.

ART. 2. The Congress, exclusively scientific, shall remain in session one week.

ART. 3. The Congress shall be composed of members of the medical profession, both national and foreign, who shall have forwarded their credentials of membership to the General Secretary. They shall not be subjected to any contribution, and shall alone be allowed to participate in the discussions.

ART. 4. The work of the Congress shall be divided into five sections, *i. e.*: 1st, Medicine, Surgery and Obstetrics; 2nd, Military Surgery (ambulance supply and service); 3rd, Hygiene; 4th, Ophthalmology; 5th, Pharmacology.

ART. 5. Upon the receipt of their certificates, members will be enrolled in the sections with which they may desire to unite. Any member may also be enrolled in several sections. Each of the sections shall choose its President, two Vice-Presidents, and a Secretary.

ART. 6. The Congress shall meet twice daily, from 10 A. M. to 1 P. M., for work in the sections; in the afternoon, from 1.30 to 5, for that of the general meeting.

ART. 7. Reporters, designated in advance by the committee, will state to the sections the subjects which shall have been assigned to them. This statement will terminate with provisional conclusions, which will have been published several months in advance of the meeting of the Congress, and which the sections shall examine in the order adopted by agreement. This work finished, they (the sections) will devote the remainder of the time to the reception of communications referring to the specialty of each, or outside of the programme. The definite conclusions voted by the sections will be next submitted by reporters, selected by them, to the sanction of the General Assembly.

ART. 8. The sessions of the General Assembly shall be devoted: 1st, To the communication of investigations directed to subjects outside of the programme; 2nd, To the discussions of reports—in the order of their presentation—and, at the proper time, to voting, by the Congress, upon the conclusions proposed by the sections.

ART. 9. Members desiring to make communications upon subjects foreign to those upon the programme, should notify the General Secretary at least one month before the opening of the Congress. The Committee will designate the appropriate time for the presentation of such communications, and also the order in which they shall be presented. The time devoted to each speaker will be limited to a maximum of twenty minutes. This restriction not being applicable to reporters.

ART. 10. At the first session the Congress shall nominate its Administrative Staff, which shall consist of a President, two acting Vice-Presidents, an indefinite number of honorary Vice-Presidents, a General Secretary, and Recording Secretaries.

ART. 11. All papers read before the Congress shall be laid upon the table. The Committee of Organization, which will resume its functions after the session and proceed to publish the transactions of the Congress, will decide upon the total or partial, or non-insertion of each in the report.

ART. 12. Whilst the sessions will be conducted in French, members will be permitted to express themselves in other languages. In such cases, if it be so desired, an abstract of the sense of their remarks will be translated by one of the members present at the meeting.

ART. 13. The President will regulate the sessions and the debates in accordance with the forms generally adopted in deliberative assemblies. He will determine the order of the day, after consultation with the other officers.

ART. 14. Medical students may receive cards of admission, but will not be admitted to participation in the discussions.

THE COMMITTEE IS NOW OCCUPIED IN THE SELECTION OF SUBJECTS FOR THE FORMATION OF THE PROGRAMME. THEY WILL BE GLAD TO RECEIVE, FROM WHATEVER DIRECTION THEY MAY COME, COMMUNICATIONS WHICH MAY BE ADDRESSED TO THEM ON THIS SUBJECT, AND WILL CONSIDER THEM IN THE CONSTITUTION OF ITS PROGRAMME, WHICH WILL BE PUBLISHED IN THE MEDICAL JOURNALS FOR THE MONTH OF JANUARY NEXT, WITH THE PROVISIONAL

CONCLUSIONS OF THE COMMITTEE. COPIES WILL BE ADDRESSED TO MEMBERS WHO MAY APPLY FOR THEM.

The Committee requests editors of medical journals throughout the world to kindly give the greatest and speediest publicity possible to this communication.

(Signed) VLEMINCKX, *President.*
WARLOMONT, *General Secretary.*

BRUSSELLS, April 15, 1874.

All communications must be addressed to M. le Dr. Warlomont, 152 Rue Royale a Bruxelles.

Married.

At Indianapolis, July 2, by Rev. Robert Collyer, Miss MELLIE R. MANLOVE, daughter of the late Absalom Manlove, Esq., of that city, and Dr. R. L. REA, of Chicago.

Chicago Mortality Report for June, 1874.

MORTALITY IN MONTH OF JUNE, 1874.

Accident, by burns	1	Croup, membranous	2
" by being crushed	1	Cyanosis	3
" by drowning	17	Debility, general	8
" by fall	1	Delirium tremens	1
" run over by wagon	2	Diarrhœa	7
" thrown from buggy	1	Diphtheria	2
" thrown from horse	1	Dropsy, general	2
" by scalding	2	" ovarian	1
" by suffocation	1	Dysentery	3
" by railroad	7	" chronic	1
Abscess	1	Entero colitis	4
" lumbar	1	Enteritis	17
Anæmia	1	Exhaustion	1
Apoplexia	9	Erysipelas	4
Bowels, ulceration of	1	Fever, congestive	1
Brain, congestion of	7	" intermittent	1
" inflammation of	10	" puerperal	5
Bronchitis	6	" remittent	2
" capillary	1	" scarlet	14
Cancer of breast	2	" typhoid	7
" lung	1	Gangrene	1
" stomach	3	Gastritis	3
Child birth	2	Gastro enteritis	1
Cholera infantum	68	Hemorrhage, internal	1
" morbus	2	Heart, disease of	6
Consumption	41	" organic disease of	1
Convulsions	65	" valvular disease of	5
" puerperal	2	" rheumatism of	1
Croup	2	Hip disease	1

Hepatitis	1	Peritonitis	1
Hernia, strangulated	1	" puerperal	1
Hydrocephalus	9	Pneumonia	14
Inanition	16	Pleurisy	1
Illeo colitis	1	Pyæmia	1
Kidneys, Bright's disease of	7	Pyo nephritis	1
" fatty degeneration of	1	Rachitis	1
Laryngitis	2	Scrofula	3
Liver, disease of	2	Septicæmia	1
" cirrhosis of	1	Small-Pox	7
" fatty degeneration of	1	Spina bifida	2
Lungs, congestion of	4	Sun stroke	4
" hemorrhage of	1	Suicide	8
" paralysis of	1	Tabes mesenterica	14
Mania, puerperal	1	Teething	2
Measles	4	" and complications	7
Meningitis	11	Tetanus	1
" cerebro-spinal	6	Tumor	1
" tubercular	2	Tonsilitis	1
Metritis	1	Uremia	1
" puerperal	1	Uterus, hemorrhage of	1
Œdema pulmonum	2	Vertebra, caries of	2
Old age	9	Whooping cough	13
Paralysis	3	Total	542

COMPARISON.

Deaths in month of June, 1874	542
" " May, 1874	509
Increase	33
Deaths in month of June, 1873	658
Decrease	116

AGES.

Under one year	231	Forty years to fifty	39
One year to two	59	Fifty " " sixty	21
Two years to three	17	Sixty " " seventy	15
Three " " four	6	Seventy " " eighty	20
Four " " five	8	Eighty " " ninety	4
Five " " ten	15	Ninety " " one hundred	--
Ten " " twenty	22		
Twenty " " thirty	41	Total	542
Thirty " " forty	44		
Colored	6	Males	296
White	536	Females	246
Total	542	Total	542

Married, 131; Single, 411. Total 542

NATIONALITIES.

Belgium	2	India	1
Bohemia	6	Italy	1
Canada	1	Ireland	40
Native—Chicago	73	Norway	5
Foreign, "	231	Poland	2
United States, other parts	72	Scotland	6
Denmark	1	Sweden	8
England	13	Switzerland	1
Germany	64	Wales	1
Holland	3	Unknown	11

Deaths daily, 18. Mean temperature, 70°. Rain fall, 3.25 inches. 542

MORTALITY BY WARDS, ETC.

Wards.	No. Deaths.	Wards.	No. Deaths.	Wards.	No. Deaths.
1	--	8	47	15	75
2	3	9	42	16	37
3	16	10	9	17	26
4	8	11	11	18	16
5	13	12	12	19	1
6	41	13	8	20	3
7	61	14	11		440

No. of deaths in Wards	440	Hahneman Hospital	1
Accidents	34	Protestant Orphan Asylum	2
Bridewell	1	R. R. Depot	1
County Hospital	12	St. Joseph's Orphan Asylum	1
Foundlings' Home	25	St. Joseph's Hospital	3
Home for Friendless	2	Small Pox "	1
Hospital Alexian Brothers	1	St. Luke's "	2
Hospital for Women and Children	2	Suicide	8
Mercy Hospital	6	Total	542

CASES OF SMALL-POX REPORTED DURING JUNE, 1874.

Wards.	No. Cases.	Wards.	No. Cases.	Wards.	No. Cases.
1	--	8	--	15	8
2	--	9	--	16	6
3	--	10	--	17	3
4	2	11	--	18	2
5	--	12	--	19	1
6	9	13	1	20	--
7	3	14	--	Recent arrival	1

Total	36
Cases reported during June, 1874	36
" " " May, 1874	56
Decrease	20
Cases reported during June, 1873	149
Decrease	113

To Editor Journal:

In this report you will see that compared with last month the increase was 33 deaths. With the increase of temperature the rate of death always increases; the increase being among children under five years of age. The temperature for this month was 22° higher than for the last month, and 26° higher than for the corresponding month of last year. At that time an epidemic of cholera was raging, while this year no epidemic of any kind is present. With the increase of temperature the rate of mortality, especially among children, may be expected to increase four-fold compared with the present rate. I cannot too strongly urge the profession to use every endeavor to have the families in their charge take unusual precautions in the care of their children, for from present indications the death rate will be unusually high this summer, and too much care cannot be taken in the management of children.

BEN. C. MILLER,
Sanitary Supt.

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXXI. — SEPTEMBER, 1874.—No. 9.

Original Communications.

ARTICLE I.—*On the Use of Ice in Painful Conditions of the Bladder and Rectum.* By HENRY M. LYMAN, M.D., Professor of Chemistry in Rush Medical College, and one of the Attending Physicians to the Cook County Hospital in Chicago.

Having been recently in a number of instances reminded of the value of ice in the treatment of painful affections of the rectum and bladder, I have thought it worth while to group these notes of cases, which, though presenting nothing new or particularly interesting, may serve to remind the readers of the JOURNAL of the virtues of a well-known remedy.

Internal Piles.—A vigorous young man, very active in his habits, suffered exceedingly with internal piles. After trying a great variety of remedies, without gaining anything more than temporary relief, the use of ice-plugs in the rectum was proposed. This measure completely subdued the pain which had tormented the patient, and after a few days of treatment he was cured. But, being of a hemorrhoidal diathesis, he is subject to occasional recurrent attacks of the disease. This, however, gives him little trouble, for the ice-plug passed above the internal sphincter muscle, soon gives him control of what was formerly a most distressing affair.

The late Dr. Chandler Gilman, of New York, used to describe to his classes the frightful suffering from piles which he had experienced when a young man, and was in the habit of employing the most fervid rhetoric to set forth the completeness of his cure by injections of ice-water into the rectum. The remedy is simple, and sometimes very effectual.

I was called in great haste, one afternoon, to see a lady who was suffering severely with intrapelvic pain. There was excessive tenesmus and urgent desire to urinate, effecting the passage of a little water from the bladder, and a great deal of slime from the rectum. I at first suspected dysentery, but the absence of inflammatory symptoms negatived this view. She had previously had a cyst in one of the broad ligaments, and the physician who saw the case with me inclined to the opinion that we had to deal with a relapse of the uterine ailment. So great was her pain that it became necessary to attempt its relief before perfecting the diagnosis. An hypodermic injection of the sulphate of morphia with atropia gave relief for two or three hours, but then the suffering was renewed. I now made a complete examination of the patient. The abdomen was flaccid, and was not painful on pressure. The uterus was in its normal position, and was not painful. Pressure against the posterior wall of the bladder gave no pain. The same was true of the lateral walls of the vagina. But when the finger was directed against the rectum, it discovered considerable swelling, great heat, and exquisite tenderness in that region. I immediately placed a large piece of ice in the vagina, and soon followed it with another. I was in a few minutes gratified by finding my patient much easier than she had been for half a day; and after introducing a vaginal suppository of morphia and belladonna, I was able to leave her perfectly comfortable. The next day she was out of bed, and has experienced no more pain.

Irritable Bladder.—One of my patients, not long since, during the last three weeks of pregnancy, suffered great inconvenience from pressure of the fœtal head against the bladder. Incontinence of urine was caused by this unusual pressure, and it was several weeks after delivery before the bladder recovered from the irritability thus induced. Several times the distress was sufficient to prevent sleep, in spite of the ordinary routine of opiates, diluents, suppositories, etc. I at length became aroused to a

recollection of previous experience with ice, and proceeded to its use. The relief which it gave was immediate and complete.

Vesical Irritation caused by Cantharides.—An affectionate couple who had just retired for the night, happened to fancy that a glass of wine was all they needed to perfect their joy. Groping in the dark, the husband poured out a teacupful of wine, which he divided with his wife. The immediate effect was agreeable, but this was soon succeeded by the severest symptoms of strangury. A physician in the neighborhood was anxiously consulted, but with so little success that in the morning I was called in. The cause of the strangury had by this time been discovered in a number of Spanish flies, which had in some unaccountable manner found their way into that particular teacup which had served as a wine-glass the evening before. I advised a diligent perseverance in the use of the opiates and diluents which had been already prescribed; and I also lodged a large lump of ice in the vagina of the woman, and a smaller suppository of the same kind in the rectum of the man. They soon pronounced this *the best thing yet*, and were from that time rapidly convalescent.

Recto-Vaginal Abscess.—I was once requested, one hot summer evening, to see a poor woman in a distant part of the city. Arrived at her residence, I found her surrounded by a shanty full of men, women and dogs, all gesticulating wildly, and chattering like a flock of Low-Dutch magpies. With the help of two interpreters, I at length succeeded in drawing out the fact that my patient had been confined by a mid-wife about five days previous to my visit. During the course of labor she had complained that "the mid-wife hurt her." After delivery she had remained comparatively comfortable until that evening, when the mid-wife, having absorbed a quart of strong beer in honor of baby, had undertaken to inject her patient with another quart of warm soap suds. This operation caused great pain, and when taxed with malpractice, the old lady was not in a condition to deny the charge with any degree of assurance. The consequent explosion was the event which occasioned my introduction to the scene.

Thus instructed, I proceeded to an examination. My patient was a large, bony, haggard-looking creature, sweating profusely, and covered with *miliaria*. Her countenance expressed the greatest anxiety and distress. Her tongue was thickly coated

with yellowish-white fur; the pulse was small, feeble, and rapid. The abdomen was overlaid with fomentations and poultices of several species. It was not distended, nor anywhere painful on pressure. The uterus was well contracted and painless. I passed two fingers into the vagina, but discovered no cause of pain until I reached the posterior wall. The rectum seemed to be greatly distended, and was very hot and exceedingly tender. Passing my forefinger into the rectum, I found nothing there, but the recto-vaginal septum was thickened, and seemed to yield under the finger like grangrenous flesh. I could detect no fluctuation, and was fearful that the septum was about to slough away. I could not quite satisfy myself with regard to the cause of this condition of the parts; but such hesitation found no place among my companions. *Scalded by a mid-wife*, was the unanimous verdict of our numerous jury, and masculine accoucheurs were at a premium in the mouth of every woman in the crowd. But something must be done, so I ordered an opiate, and advised the use of a lump of ice in the vagina. Ice! That was something used at the saloons to keep beer cool. It was an unknown commodity in that part of the city. One old crone was quite confident that it could not be a safe thing so soon after delivery. Very well. I promised to call the next morning, and hastened into the open air.

On the following day, accordingly, I found myself, with many misgivings, approaching the humble abode of my unfortunate patient. I entered. The cottage was clean and quiet. Its only occupants were the sick woman, her baby, and a single attendant. She was sitting in a rocking-chair, and a smile of gratitude rippled from ear to ear across her rugged features. "Was she better?" "Yah!"

The powders had done her no good (?); so, after a grand family debate, it had been decided to obey the doctor, and her husband had sallied forth into the night in search of ice. A benevolent butcher had been prevailed upon to furnish the article, and, sometime after midnight, the first suppository of ice was duly placed in position. Speedy relief was the result, and my patient slept till morning. Her symptoms all indicated great improvement, and, during the whole process of suppuration, until the evacuation of an abscess through the rectum, a week afterwards, a lump of ice in the vagina was always sufficient to prevent the recurrence of severe pain.

ARTICLE II.—*Multilocular Sero-Cystic Ovarian Tumor successfully treated by Means of the Electropuncture.* By PLYM. S. HAYES, M.D., Chicago.

Miss S——, a medical practitioner, aged 40, consulted us Feb. 21st, 1874, with regard to an abdominal tumor. She is of nervo-sanguine temperament, the nervous predominating; a little below the medium height; of previous good health, the most severe illness she had ever experienced being an attack of cholera, seven years previous.

She commenced menstruating when thirteen or fourteen years old, and has menstruated regularly ever since without pain, until December 1st, 1873, at which time her attention was called to a tumor near the crest of the right ilium; since then, the menstrual periods have recurred at shorter intervals, and the discharge has been "dark and grumous for the first few hours, and quite profuse."

She has been troubled with a slight leucorrhœa for a number of years.

When the tumor was first discovered it was about the size of an orange, and the patient could distinguish through the abdominal walls a connection between it and the uterus.

About the middle of December, on jumping from a carriage she felt the tumor fall from its first position—at the crest of the right ilium—and in the course of two or three days it was detected in the left iliac fossa.

The tumor is at times the seat of a dull heavy pain, increased by pressure.

The patient says she can trace the outlines of three distinct lobes; these could be distinguished four weeks after the discovery of the tumor.

For the last two years she has experienced pain in the neighborhood of the rectum. She has lost considerable flesh since the discovery of the tumor.

She had diagnosed the growth as a multilocular sero-cystic ovarian tumor. Our first examination confirmed her diagnosis.

As her general health had suffered somewhat, she was advised to rest, and the electro-thermal bath was prescribed, during which the faradaic current was passed transversely through the tumor; after this the positive electrode, surrounded by a sponge, was placed

on the abdomen over the growth, while the electrodes opposite the tumor were made negative; this treatment was preceded and followed by the use of the general currents. For about two weeks, under this treatment, the tumor decreased in size and the general health of the patient improved. At this time the menses appeared, and the tumor regained its former size.

In an examination prior to operating, Dr. A. Reeves Jackson was invited to examine the patient with us; which he did March 11th.

The abdomen was as large as that of a woman five months pregnant. The growth extended an inch and a half above the umbilicus when the patient was supine. As the abdominal walls were quite thin, the outlines of the tumor were easily distinguished. Three lobes could be distinctly outlined: one in the right iliac fossa, which had attached to its inferior portion a pedicle passing into the cavity of the pelvis; one to the left of the median line, connected by a band to the first named lobe: and a third—the original tumor—below this band and just above the pubis; this lobe was felt to be nodulated.

Fluctuation could be distinguished in the first two when palpation was employed over each separately, but not when the hand was placed over the one and the other percussed.

Digital examination revealed the fact that the os uteri was directed backward, pressed firmly against the rectum, and congested. Bimanual examination demonstrated that the tumor was not uterine. The sound was introduced into the uterus, and the tumor moved from side to side without producing any marked movement of the sound. The uterus was of normal depth.

The first operation took place at 5.30 P. M., March 13th. The patient was placed on her back on the table and her abdomen exposed. Ether spray was used to produce local anæsthesia over the points selected for the introduction of the needles.

Two needles were used, one insulated, and the other uninsulated, and attached to the same pole—negative—by means of a *serres-fines* conductor. The needles were introduced by Dr. Jackson. The insulated needle was introduced one inch and three-quarters into the abdominal walls and penetrated the right cyst, on a line connecting the anterior superior spinous processes of the ilia, and five inches from the right anterior superior spinous process. The

uninsulated needle was introduced two inches, penetrating the left cyst in the same line with the other needle, three and a half inches from the left anterior superior spinous process.

Following the introduction of the needles the positive electrode, surrounded by a moist sponge, was placed over the right sacro-iliac articulation. The current from a battery of twenty-one Hill elements—with a galvanometer and rheostat in an accessory circuit, with a resistance of 2100 B. A. units and that of the galvanometer coil in this circuit—was applied for three minutes, when nine more elements were added, and the current from thirty elements continued for twelve minutes longer. The skin became whitened and raised around the uninsulated needle, while it remained depressed and unchanged around that which was insulated. A few drops of a clear serous fluid exuded on the withdrawal of the insulated needle. There was no hemorrhage from the needle punctures. Before the operation the pulse was 112 to the minute, during the operation 108, and afterwards 112.

For three nights and two days following the operation there was marked diuresis and diaphoresis. The pulse during this time was not less than 88, nor more than 112 to the minute. There was no pain after the operation, and for the first twenty-four hours afterward she suffered less than usual.

During the afternoon of March 14th she sat up in a chair, and received electrical treatment. Her feet were placed in warm water, into which the positive electrode had been placed, while the negative, enclosed in a sponge, was applied over various portions of the tumor for five minutes, with a galvanic current from twenty-one elements. Then the negative was placed in the foot bath and the positive held in the hands for ten minutes. This treatment was again given on the following afternoon.

When she first sat up, the day following the operation, she said that she felt a drawing sensation as though an adhesion were forming at the point where the insulated needle was introduced.

For some time prior to this treatment the patient had found it necessary to take a lunch between regular meals, probably on account of the rapid growth of the tumor; but since March 16th she has not felt the need of it.

March 21st, Saturday, she left the city on a visit, and returned

Monday. She said that she had not felt so well since she left, and that her abdomen was larger.

At 5.45 P. M., March 23d, an insulated needle was introduced seven-eighths of an inch into the abdominal walls—penetrating the right cyst of the tumor—about one-half of an inch from the former point of the introduction of the insulated needle. The current from thirty elements, with the same resistance in the accessory circuit, and applied as before, was continued for twelve minutes.

Before the operation the pulse was 92, after it, 112, and during the following evening, 96. This operation was followed, as in the previous case, by marked diuresis and diaphoresis, which continued for nearly two days.

At 4.15 P. M., April 9th, an insulated needle was introduced to the depth of one inch, penetrating the left cyst, half an inch nearer the median line than the point of introduction of the uninsulated needle. The current from thirty elements was employed, as in the former operations, and continued for fifteen minutes. The pulse before the operation was 118; after it, 100. No diuresis followed this operation; the patient, however, was in a gentle perspiration for some time afterward.

April 18th, at 4.30 P. M., the fourth and last operation was performed. An insulated needle was introduced to the depth of one inch and a quarter into the abdominal walls, one-half of an inch from the last puncture on the right side, and penetrating the right cyst. A current from thirty elements was employed as before for fifteen minutes. The pulse was constant at 98. The patient labored under more nervous excitement than at any previous operation. This was probably due to the proximity of her menstrual period. There was before the operation distinct fluctuation in the right lobe, while the left lobe could hardly be distinguished.

April 24th—She has just ceased to menstruate, and the tumor appears to be as large as before the last operation.

April 26th—The tumor has diminished much in size.

April 29th—Dr. Jackson made an examination through the abdominal walls. *The left cyst could not be found.* While using considerable force in trying to ascertain the size and position of the now greatly diminished right cyst it was ruptured with an audible sound. Following the rupture there was dullness on per-

cussion at the most dependent portion of the abdomen, which was most marked when the patient was lying on her right side. The pulse was not accelerated, and there was no systemic disturbance following the rupture.

May 1st—The patient has voided more urine than usual, during the last two days. No tumor can be detected, and the ovary somewhat enlarged can now be felt. Percussion does not reveal any dullness above the pubis when in an erect position.

June 20th—An examination made this evening failed to discover any tumor. The right ovary could be distinguished through the abdominal walls, displaced to the left, and somewhat enlarged. No fluctuation could be felt, and the abdomen was resonant on percussion over the entire region of marked dullness prior to the last operation. The abdominal walls have become thickened and have lost the bluish cast which they had before the operations. Her menstrual periods have assumed their former regularity as regards time, and quantity, and quality of the discharge. Her general health is much improved, and during the last few weeks she has been gaining in flesh. During the time prior to, between and subsequent to the operations, the electro-thermal bath was used as an adjuvant to improve the general health and relieve the uterine and ovarian congestion.

July 21st—Two examinations have been made since the last notes were taken, at which time no cysts could be found. To-day Dr. Jackson made a thorough examination. He concurred in our opinion, that the cysts had been destroyed.

Four operations were performed. At the first, two needles were introduced, and subsequently only one neeedle was used at each operation. The longest period that intervened between any of the operations was seventeen days, which occurred between the second and third. Nine days intervened between the first and second and between the third and fourth operations. The needles used were insulated to within half an inch of their point, save in the first instance, when one of them was uninsulated. We used the insulated needles in preference to the uninsulated, because the punctures made by the former healed more readily than those made by the latter, on account of the uninsulated needle disorganizing the tissues in its immediate proximity. In all, two needles

were introduced into the left, and three into the right cyst. At no time was there any peritoneal inflammation set up.

During the operations the most pain was felt at the place where the positive electrode, surrounded by a moistened sponge, was applied; this produced a burning sensation.

The needles were made negative rather than positive. First, because the negative always remains intact, while the positive, unless of gold or platinum, is disintegrated and therefore leaves some salt of the metal, which composes the needle, in the tissues—these salts are probably the oxides and chlorides. Second, hemorrhage is more apt to follow the removal of the positive than of the negative needle. Third, abscesses sometimes follow the introduction of the positive, but never that of the negative needle; and lastly, the irritation of the hydrogen liberated from the negative needle, if not the immediate cause of the absorption, continues the action commenced by the galvanic current.

We consider that the operation is attended with no more danger than is the introduction of the canula of an aspirator.

ARTICLE III. — *Remarkable Case of Retention of Placenta.* By C. E. RISTINE, M.D., Edgefield, Tenn.

Was called at 5 A. M., 15th of July, 1870, by Mr. B., to visit his wife, whom he said had given birth to an apparently mature child on the day previous (14th), at 4 o'clock P. M., and that the afterbirth had not been delivered. Arriving at Mr. B.'s residence, found the patient lying on her back, with head and shoulders elevated. She was a blonde, 20 years old; primapara; anemic, pale, nervous; alarmed and uneasy; suffering no pain. She was attended in her confinement by a midwife. Patient has had no pain since birth of child. External abdominal examination revealed a semi-contracted condition of uterus; soreness, but no pain, on pressure. I then proceeded to make an examination per vaginam. My hand (well oiled) was introduced into vagina, and just as the fingers had reached or touched the mouth of womb she was seized with a convulsion, which lasted about two minutes after the withdrawal of my hand. Patient said she would not submit to

another examination. However, I prevailed on her to permit one more, which should be conducted with great pains and care; but nevertheless the convulsion returned, more violent than the first. I then sent for chloroform, and, under its influence, I made an examination (patient had another but milder convulsion, the force of it being only partially controlled) which revealed attachment of cord. (The cord was severed about two inches from its attachment to the placenta, by the midwife, in her endeavor to deliver it.) On the right side, placenta was tightly and completely adherent. The effort to force my finger beneath its margin caused the patient to scream aloud. Her husband, mother and sister then interfered, and begged me to desist—to withdraw my hand and let her die, if it, remaining there, would produce death.

I used no more manual effort to extract it, and, being at a loss to know what else to do, I prescribed: ergot and quinine; rest, in horizontal position; stimulating embrocations to abdomen, over region of womb; and, when admissible, the injection of warm water per vaginam.

Things continued in the same condition; no alarming symptoms for twenty-eight days, or until the 11th of August. At 12 o'clock M. on that day the patient had several severe pains, the last one expelling the placenta, to the great satisfaction and extreme joy of the patient and relatives. The cord had sloughed off even with the face of placenta; its attachment was visible; no membranes present, except that covering the placenta; it was about half the usual size, apparently well nourished.

Patient had remained in bed twenty-eight days; I saw her every day, and during that time there was no appearance of the *lochia*, or milk. The lochia came on immediately after the expulsion of placenta, and continued four days. The milk appeared on the second day after, but not sufficient to nourish her child. She made a good and speedy recovery, gaining flesh and strength rapidly. Various other medicines were given during the twenty-eight days to relieve minor troubles, but nothing more to induce uterine contractions.

This lady was living at that time in Anderson county, Tenn., near Coal Creek, and unless she has moved during the last six months, resides there now.

ARTICLE IV.—*Case of Strangulated Hernia, Reduced by Gravitation and Traction.* By J. W. ROBBINS, M.D., Manchester, Iowa.

On the 8th ult. had a call to Mr. Sellens, aged 85 years. Has had hernia for many years. Says it would always go back itself, till this time, and now it had been down a week, and he could not get it back, and it was becoming very troublesome and painful.

On examination, I found a direct, intestinal hernia protruding from the internal ring of the left side, feeling to the touch hard as stone.

Having ascertained that the bowels were in a favorable condition, I gave him morphia and ipecac, and placed a sack of wet salt over the tumor. After waiting half an hour, I attempted reduction by taxis, and, failing, as I expected to, I then placed the legs of the patient over the shoulders of an assistant, and had his body raised nearly to a perpendicular position. Then, while manipulating the tumor with one hand, I grasped the abdomen with the other, and made traction as well as I could. To the joy of all concerned, the tumor, with the characteristic gurgle, suddenly disappeared.

Describing the case to a medical friend, he thought the best way was to get the finger into the ring, and then it could be reduced very readily. In my case, I think one might about as easily get the finger into an auger-hole with a wooden pin in it.

ARTICLE V. — *Fœtal Auscultation — Report of Fifty Cases.* By ALBERT B. STRONG, M.D., Ex-Resident Physician Cook County Hospital, Chicago. Read before the Cook County Medical Society, July 20, 1874.

It is claimed that the pulse of the female fœtus is uniformly much faster than that of the male, and consequently it is possible to determine the sex of the child in utero. According to one observer, there is a difference of fifteen or twenty pulsations per minute. It is also claimed, that the presentation may be accurately diagnosed by noting the point at which the heart-sounds are heard the plainest.

For the purpose particularly of investigating the truth contained in these statements, the following observations were performed upon patients in the Lying-in department of Cook County Hospital of this city.

During the examination, which embraced fifty cases, many interesting facts were elicited which will first be laid before the Society. As the heart-sounds are usually limited to a small space of two or three inches square, the stethoscope will be found to be preferable to the unaided ear.

Aside from the rumbling in the intestines, two distinct sounds may be heard, first, the utero-placental souffle which is syncronous with the maternal pulse. This is a loud, blowing murmur, frequently of a musical character, and is not at all constant, being plainly audible at one moment and absent the next. It differs very materially from the heart-sounds which are independent of the maternal circulation, and is short, sharp, clear and clicking, similar in character to the second sound of the adult heart.

The fœtal pulse is subjected to the same variations as that of the adult, only in a much more marked degree. While the child is perfectly quiet, the heart is tolerably uniform in its pulsations; but let it make the least movement and almost instantly the pulse is greatly accelerated, increasing thirty or forty beats in the minute. The cause being removed, it falls as rapidly as it ascended. Though the child be alive, it is said the heart-sounds cannot always be heard. Such cases must be rare, especially in the last month of pregnancy, for we never have failed, after a careful, and in some cases prolonged, examination, in detecting it. Frequently at the commencement of the observation, the souffle has been so intense as to mask all other sounds, but as the momentary excitement of the mother passed off, the heart could be heard. Throughout a natural labor the action of the heart is variable, so much so that in the majority of the cases where the observation was taken at this time alone, the diagnosis proved to be wrong. For the first part of a pain, the pulse is greatly accelerated, but as the uterus contracts more firmly, and the child is subjected to greater pressure, it falls considerably; as the pain passes off, it rises above its natural pulsation, and, if the interval last a few moments, it again falls and becomes regular at a more frequent pulsation than before labor began. As, for example, in one case

the pulse was steady for several days at 124, in the first part of a pain it ran up to 150, at the latter part it sank to 60; in the first part of the interval it increased to 170, and then decreased, and became steady at 134.

From these facts in regard to the variable action of the fœtal heart, it is evident that the examination *must be repeated at different intervals and during the time that the child is perfectly quiet*, and that the average result of such examinations, being an approximation to the true state of the pulse, can alone be of possible service in determining the sex of the child. In searching the literature of the subject, which is exceedingly scant, we have been much surprised to see how other observers have arrived at conclusions so radically different from our own.

In an article on Fœtal Physical Diagnosis, (published in the *American Practitioner*, of December, 1873,) by Frank C. Wilson, M.D., Visiting Physician to the Louisville City Hospital, the Doctor says he has kept "accurate notes of all the cases met with in hospital and private practice, diagnosing the sex in each, failing only in nine cases out of one hundred and nine." 125 was the average pulse of the males, 143 that of the females, 134 being the average of both sexes, and the dividing line between them. For Dr. Cumming's 41 cases the average pulse of the males was 131; of the females, 145; of both sexes, 136. For our own cases there is not this great difference between the pulse of the male and female, and consequently the ability to predict the sex is far from flattering.

The record as kept at the bedside, is herewith submitted, in order that those who are so disposed may draw their own conclusions. This privilege is denied in the article above alluded to. The weight of most of the children was also taken, under the supposition that there might be some relation between the rapidity of the pulse and the vigor of the child as indicated by this; no connection, however, is found.

For convenience, the uterus was divided by right lines, into four equal parts, designated as the right and left upper, and the right and left lower quarters.

It is said, if the heart pulsates in the lower half of the abdomen, the vertex presents; if in the upper, the breech is the presenting part; and furthermore, that the occiput or coccyx will be on that

side of the median line where the heart-sounds are heard the plainest.

The table alluded to is as follows:

No. of Patient.	Date of Observation.	Pulsation of Heart.	Where Heard.	Date of Delivery.	Presentation.	Position.	Sex.	Weight. lbs.
1	Sept. 18th, 1873	124	Left lower quarter.	Sept. 30th.	Ver.	1st.	M.	
1	2nd stage labor	132	" "					
2	Sept. 26th	128	" "	Oct. 1st.	Ver.	1st.	F.	
3	Sept. 16th	132	Right lower quarter.	Oct. 4th.	Ver.	2d.	F.	
3	Sept. 22nd	140	" "					
3	Oct. 1st	140	" "					
4	Oct. 1st	140	" "	Oct. 1st.	Ver.	2d.	M.	
5	Oct. 11th	128	Left lower quarter.	Oct. 11th.	Ver.	2d.	M.	9
6	Oct. 6th	124	Right lower quarter.	Oct. 11th.	Ver.	1st.	F.	7½
7	Oct. 8th	130	Left lower quarter.	Oct. 16th.	Ver.	1st.	F.	8½
7	1st stage labor	140						
7	2nd stage labor	144						
8	Oct. 9th	154	" "	Oct. 16th.	Ver.	1st.	F.	9
9	2nd stage labor	140 to 160	Median line between pubes and umbilicus.	Oct. 25th.	Br.	1st.	M.	5½
10	Oct. 10th	130	Left lower quarter.	Oct. 30th.	Ver.	1st.	F.	8
10	1st stage labor	142						
11	Oct. 6th	128	Right lower quarter.	Nov. 1st.	Ver.	2d.	F.	8¼
11	Oct. 10th	128 to 140						
11	Oct. 27th	120						
11	2nd stage labor	130						
12	Oct. 8th	128	Left lower quarter.	Nov. 1st.	Ver.	2d.	M.	11
12	Oct. 22nd	132						
13	Oct. 31st	124	Median line between pubes and umbilicus.	Oct. 31st.	Ver.	1st.	M.	9
14	Oct. 28th	132	All over abdomen.	Oct. 31st.	Ver.	1st.	M.	8
15	Nov. 4th	122	Left lower quarter.	Nov. 9th.	Ver.	1st.	F.	7¼
15	1st stage labor	144						
16	Oct. 20th	134 to 145	" "	Nov. 4th.	Ver.	1st.	F.	7
17	Oct. 20th	118 to 140	Left lower quarter.	Nov. 9th.	Ver.	2d.	F.	8
17	Oct. 22nd	120						
18	Nov. 10th	132	" "	Nov. 11th.	Ver.	1st.	F.	6
19	Oct. 2nd	140	" "	Nov. 13th.	Ver.	1st.	F.	7½
19	Nov. 6th	134						
20	Nov. 2nd	132	Right lower quarter.	Nov. 13th.	Ver.	2d.	F.	7
21	Oct. 28th	130	Left lower quarter.	Nov. 13th.	Ver.	2d.	M.	7¼
21	Nov. 2nd	144						
22	Nov. 16th	130	" "	Nov. 16th.	Ver.	1st.	M.	8½
23	Oct. 31st	122	" "	Nov. 18th.	Ver.	2d.	M.	8
23	Nov. 3rd	132						
24	Oct. 10th	130	Right lower quarter.	Nov. 23rd.	Ver.	2d.	M.	7
24	Oct. 13th	140	Over most all uterine tumor, most intense on right side.					
24	Nov. 4th	128 to 140						
24	Nov. 15th	126 to 140						
25	Oct. 9th	150	Left lower quarter.	Nov. 25th.	Ver.	1st.	M.	10
25	Oct. 13th	140						
25	Oct. 22nd	140						
25	Nov. 15th	134						

No. of Patient.	Date of Observation.	Pulsation of Heart.	Where Heard.	Date of Delivery.	Presentation.	Position.	Sex.	Weight. lbs.
26	Nov. 10th	124	Left lower quarter.	Nov. 27th.	Ver.	1st.	M.	8¼
26	Nov. 23rd	118						
26	Nov. 25th	124						
27	Nov. 25th	150	" "	Nov. 26th.	Ver.	1st.	F.	6
28	Oct. 27th	130 to 180	Over two-thirds tumor, most intense in right lower quarter.	Nov. 30th.	Ver.	2d.	M.	9½
28	Nov. 23rd	128 to 140						
29	Nov. 30th	132	Right lower quarter.	Nov. 30th.	Ver.	2d.	F.	7
29	2nd stage labor	146						
30	Nov. 10th	120	Right lower quarter.	Dec. 3rd.	Ver.	2d.	M.	8
30	Nov. 15th	140						
30	Nov. 23rd	140						
31	Nov. 2nd	150	" "	Dec 5th.	Ver.	2d.	M.	9
31	Nov. 15th	140						
31	Nov. 23rd	148						
32	Oct. 31st	140	Left lower quarter.	Dec 8th.	Ver.	1st.	M.	8
32	Nov. 18th	140						
33	Nov. 8th	124	" "	Dec. 23rd.	Ver.	1st.	M.	12
33	Nov. 15th	128 to 160						
33	Nov. 23rd	132						
34	Nov. 26th	140	" "	Dec. 25th.	Ver.	1st.	F.	6
34	Dec. 1st	124 to 130						
35	Dec. 28th	140 to 160	" "	Dec. 31st.	Ver.	1st.	F.	7
35	Dec. 30th	130						
36	Dec. 26th	130	" "	Dec. 30th.	Ver.	1st.	F.	9
37	Dec. 31st	150 to 180	Right lower quarter.	Jan. 3rd.	Ver.	2d.	M.	8
38	Dec. 26th	134	All over tumor.	Jan. 11th.	Ver.	1st.	F.	8½
39	Dec. 28th	130	Left lower quarter.	Jan. 7th.	Ver.	1st.	F.	7
39	Dec. 31st	138						
40	Dec. 5th	132	Right lower quarter.	Jan. 9th.	Ver.	2d.	F.	8½
40	Dec. 11th	130						
41	Dec. 11th	132	Left lower quarter.	Jan. 1st.	Ver.	1st.	F.	7
42	Jan. 11th, 1874	126	Right lower quarter.	Jan. 12th.	Ver.	2d.	F.	7
43	Dec. 26th	140	Left lower quarter.	Jan. 13th.	Ver.	1st.	F.	8
43	Dec. 31st	164						
44	Jan. 27th, 1874	170	" "	Jan. 28th.	Ver.	1st.	F.	6¼
45	Nov. 23rd	122 to 180	Right lower quarter.	Jan. 16th.	Ver.	2d.	F.	11½
45	Dec. 11th	128						
46	Feb. 8th, 1874	128	" "	Feb. 8th.	Ver.	1st.	M.	
47	Jan. 8th, 1874	150	Left lower quarter.	Feb. 9th.	Ver.	1st	F.	
48	Jan. 16th	164	" "	Feb. 13th.	Ver.	1st.	M.	
49	Jan. 3rd	130	" "	Feb. 14th.	Ver.	1st.	M.	
50	Jan. 12th	130	Right lower quarter.	Feb. 15th.	Ver.	1st.	M.	

There were 88 examinations made upon these 50 cases, of which there were 23 boys and 27 girls. The lowest pulse was 118; it occurred only twice—once each in the case of a girl and boy. The highest was 180, occurring three times, two of the cases being boys, the other a girl. The average pulse of the males was

136.3; of the females, 137; of both sexes, 136.7. At 136, then, as the dividing line between the sexes—the pulse of this number and below being considered as belonging to boys, and above it to girls—the diagnosis was correct in 26 cases and wrong in 24. Again, leaving out of consideration those examinations where the fœtus was found to be active, the average pulse of the males was 133.6; of the females, 136.2; of both sexes, 134.9. Then, with 134 as the dividing line, the diagnosis was correct in 24 cases and wrong in 22. Again, with 128 as the dividing line, the diagnosis was correct in 28 cases and wrong in 22. There were six girls whose pulse was steady below 128. Five boys had a steady pulse between 128 and 138; three between 138 and 148; two between 148 and 158; and one between 158 and 168. So far as the facts elicited from the entire number of cases are of any value, it is too evident that they have utterly failed to determine the sex in utero. Dr. W. admits the necessity of repeated examination in each case, but says many of his observations were taken but once. Possibly if we had availed ourselves of this repeated examination to a greater extent the result might have been different.

In regard to diagnosing the presentation, we can report more favorably, being correct in 49 out of the 50 cases. The case of failure was one where the breech was the presenting part, but the examination was not made till the second stage of labor. The position, so far as being to the right or left of the median line is concerned, was correct in 38 and wrong in 8 cases. Of the four remaining cases, the heart-sounds were heard all over the uterine tumor in two of them, both being vertex presentations, with the occiput to the left; in the other two cases, the heart-sounds were the plainest on the median line between the pubes and umbilicus, one being a vertex presentation, with the occiput to the left, and the other a breech.

In conclusion, it would seem that an opinion in regard to the sex of the child, founded on the action of the fœtal pulse, is of little more value than a guess, while the presentation may accurately be diagnosed, as possibly likewise the exact position.

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ARTICLE VI.—*Record of Observations in Fifty Obstetrical Cases, with a View of Determining Sex in Utero.* By D. A. K. STEELE, M.D., Resident Physician Cook County Hospital.

The interesting fact, that in a certain proportion of cases we may determine with some degree of accuracy the sex of the child in utero by auscultating the fœtal heart, has long been established. Some writers have been very enthusiastic in defense of their observations. One author asserts that out of one hundred and nine cases he was correct in one hundred, while Frankenhauser gravely asserts (in the *British Med. Journal*, Aug. 16, 1873) that in fifty cases which he examined. in every instance his diagnosis was *correct.* Other writers, perhaps more conscientious or less careful, have declared that their observations have been comparatively worthless.

Noticing the disparity between statements of different writers on this subject, on the 1st of February, 1874, I determined to make a series of observations with a view of ascertaining in what per cent. of cases our predictions would be verified. Since that time I have kept a careful record of fifty cases, the result of which I give herewith, for convenience, in a tabulated form, giving all the facts of interest as concisely as possible, without wearying the reader with a detailed statement, under the following heads:

1st, Nationality of Mother; 2nd, Age of Mother; 3rd, Duration of Labor; 4th, Weight of Child; 5th, Sex of Child; 6th, Record of Fœtal Heart.

Multipara, 13 cases; Primapara, 37 cases; total, 50.

NATIONALITY OF MOTHER.

United States,	16	Norway,	4
Sweden,	9	Denmark,	1
Ireland,	7	Switzerland,	1
Germany,	6	Foreign, 68 per cent.	
England,	6	Native, 32 per cent.	

AGE OF MOTHER.

February,	Maximum, 37 years, Minimum, 18 "	Average, 25 years.
March,	Maximum, 37 years, Minimum, 17 "	Average, 25 years.
April,	Maximum, 40 years, Minimum, 17 "	Average, 24 years.
May,	Maximum, 25 years, Minimum, 17 "	Average, 21 years.
June,	Maximum, 32 years, Minimum, 24 "	Average, 27 years.
Grand Total,	Maximum, 40 years, Minimum, 16 "	Average, 24 years.

DURATION OF LABOR.

February,	Maximum, 20 hours, Minimum, 3 "	Average, 13 hours.
March,	Maximum, 18 hours, Minimum, 4 "	Average, 11 hours.
April,	Maximum, 36 hours, Minimum, 6 "	Average, 13 hours.
May,	Maximum, 36 hours, Minimum, 1 "	Average, 11 hours.
June,	Maximum, 24 hours, Minimum, 8 "	Average, 13 hours.
Grand Total,	Maximum, 36 hours, Minimum, 1 "	Average, 12 hours.

WEIGHT OF CHILDREN.

February,	Maximum, 10 lbs. Minimum, 6 "	Average, 8½ lbs.
March,	Maximum, 10 lbs. Minimum, 8 "	Average, 8¾ lbs.
April,	Maximum, 10 lbs. Minimum, 6 "	Average, 8 lbs.
May,	Maximum, 11½ lbs. Minimum, 4 "	Average, 8 lbs.
June,	Maximum, 9½ lbs. Minimum, 5½ "	Average, 8 lbs.
Grand Total,	Maximum, 11½ lbs. Minimum, 4 "	Average, 8 1-5 lbs.

SEX OF CHILDREN.

Children born in February—Male, 5, Female, 3; total, 8.
Children born in March—Male, 10, Female, 3; total, 13.
Children born in April—Male, 8, Female, 5; total, 13.
Children born in May—Male, 8, Female, 2; total, 10.
Children born in June—Male, 4; Female, 2; total, 6.
Grand Total—50; Male, 35; Female, 15.

RECORD OF FŒTAL HEART.

February,	Average Male Fœtal Heart, 138 Average Female Fœtal Heart, 137	Average, 137½.
March,	Average Male Fœtal Heart, 128 Average Female Fœtal Heart, 139	Average, 133½.
April,	Average Male Fœtal Heart, 131 Average Female Fœtal Heart, 140	Average, 135½.
May,	Average Male Fœtal Heart, 127 Average Female Fœtal Heart, 125	Average, 126.
June,	Average Male Fœtal Heart, 123 Average Female Fœtal Heart, 130	Average, 126½.
Grand Total,	Average Male Fœtal Heart, 129 Average Female Fœtal Hear', 136	Average, 132.

PREDICTIONS.

Male Fœtal Heart,	35.	Correct,	24.
		Doubtful,	4.
		Wrong,	7.
Female Fœtal Heart,	15.	Correct,	8.
		Doubtful,	3.
		Wrong,	4.

From these observations we deduce the following facts :

First. In the majority of cases *male* fœtal hearts are slower than *female.*

Second. 132 fœtal pulsations per minute is the average dividing line. Below this, 68¼ per cent. are male; 20 per cent. female; 11⅜ per cent. doubtful. Above this, 53⅓ per cent. are female; 26⅔ per cent. male; 20 per cent. doubtful.

We may notice in this another demonstration of the fickleness of the female heart.

Third. The most accurate observations are made during the last four weeks of gestation.

Fourth. The rapidity of the heart's action is increased in proportion to feebleness of the fœtus.

Fifth. Calcareous or fatty degeneration of the placenta renders the pulsations feeble and irregular.

Sixth. In some cases it would be possible to diagnose diseased conditions of the placenta from careful observation of the fœtal heart.

The sounds of the fœtal heart may be rendered feeble by thick abdominal walls, tense abdominal muscles, or the presence of a large quantity of amniotic fluid.

The attachment of the placenta may be determined by the souffle, a soft blowing murmur, synchronous with the maternal heart.

The weight of the child does not increase the force of the fœtal heart. During labor the fœtal heart becomes accelerated and irregular in its action. The most accurate diagnosis was the result of repeated observations, as the fœtal heart might be accelerated in its action by temporary excitement during a single examination.

The observations were conducted by means of an ordinary Cammana's stethoscope, and my experience has been, that a better sound is heard when the bell of the instrument is moistened and applied to the abdomen without pressure, as the peculiar thrill of the fœtal circulation is lost when the stethoscope is grasped by the fingers.

For convenience I divided the abdomen into four segments, by means of rectangular lines crossing at the centre of the uterus. These I designated as the right and left, upper and lower quarters.

In the 50 cases recorded above, the fœtal heart was heard most distinctly—in 30 cases in left lower quarter; in 12 cases in right lower quarter; in 5 cases in left upper quarter; and in 3 cases in right upper quarter. And it is proper to add, that the last three cases were all breech presentations; all the others being vertex. Forty-one were in the first position, and six in the third.

If the fœtal heart is heard most distinctly above the transverse line, the presentation is most likely breech. If below, almost cer-

tainly vertex. Much valuable information can be gained by inspection and palpation in determining the position of the fœtus, and we should not rely entirely on auscultation.

I am indebted to my friend Dr. Strong for many valuable suggestions as to the best method of conducting these observations.

Progress in Medical Sciences.

ARTICLE I.—*Progress of Syphilology.* By JAMES NEVINS HYDE, M.D., Lecturer on Dermatology and Syphilis, Rush Medical College, Chicago.

1. Triple Ocular Paralysis of Syphilitic Origin. ALFRED FOURNIER. (*Annales de Dermatologie et de Syphiligraphie*, T. 5, No. 3.)
2. Parasitic Balano-Prosthitis in Diabetes Mellitus. DE BEAUVAIS. (*La Gazette Medicale de Paris*, No. 18.)
3. On Tertiary Syphilis. ALFRED FOURNIER. (*La France Medicale*, Nos. 41 and 44.
4. The Effect of Menstruation upon Cutaneous Disorders. DANLAS. (*La Gazette des Hopitaux*, No. 55.)
5. Osseous Lesions in Infantile Syphilis. PONCET. (*Le Progres Medical*, No. 17.)
6. The Archives of Dermatology. L. DUNCAN BULKLEY, M.D.

1. Marie S——, twenty-two years old, of lymphatic temperament, presented herself at the Lourcine Hospital, in June, 1873. She possessed naturally a strong constitution, and had enjoyed previous good health.

She was found to be affected with divers ocular paralyses, about to be described, which had produced a facial expression of remarkable character.

She stated, in response to questions regarding her antecedent history, that she had contracted syphilis four years prior to the date of her examination. At that time she had been admitted to the Lourcine Hospital for various syphilitic lesions, and notably for "a roseola which covered the surface of the body, and mucous patches of the vulva." Some months later, an extensive alopecia occurred. She had, further, been affected at different times with severe attacks of sore throat and ulcerations of the buccal cavity, requiring several cauterizations. Finally, three years ago, she was prematurely delivered of a dead fœtus. Specific treatment had never been pursued, neither in nor out of the hospital. She affirmed that she had never taken either mercury or the iodide of potassium. The only remedies which she acknowledged having employed were "tonic powders."

She believed that she was relieved of the disease, since for two or three previous years no indications of it had existed, when, four months ago, she was seized with severe attacks of headache, coming on at night, and especially during the latter half of the night. Toward four o'clock in the morning, these pains became intolerable, and precluded the possibility of sleep. For about one month they continued with unabated intensity, but diminished, later, without the intervention of treatment.

From this date the patient began to be conscious of another phenomenon, slight at first, but soon aggravated. Occasionally she was annoyed by double vision, which resulted finally in habitual diplopia. To gain an exact idea of the number and situation of objects, she was under the necessity of closing the left eye with the hand, and of using the right eye only for purposes of vision.

In a short time the upper lid of the right side began to droop, and this prolapse increased until the globe was permanently half concealed by the lid.

The disorder of the eyes increased finally to that point, when the patient was compelled to seek medical advice. She consulted M. Desmarres, who recognized the syphilitic character of the paralysis, and ordered some mercurial pills, and a solution of the iodide of potassium. This treatment she discontinued after perseverance in it for a few days, since the headache disappeared, and she thought that a spontaneous cure of the ocular disease would follow. In this she was mistaken, and hence determined to return to the Lourcine.

We first saw the patient in June of 1873. At that time the following conditions were established:

(1.) On the right side, *evident paralysis of the third pair*. This paralysis was declared by its normal symptoms, viz.: (*a.*) Drooping of the upper lid; this drooping, partial, since the eye was not completely, but only about two-thirds, covered; and complete abolition of the power of voluntary elevation of the lid. When the patient desired to employ the right eye in vision, it was necessary for her to raise its upper lid by the finger. When the lid was raised by the hand of another, no spasmodic resistance was encountered, and the removal of the finger was followed by the passive return of the lid to its former situation. (*b.*) Fixation of the ocular globe; cornea and pupil in median line; and almost complete loss of power to turn the eye upward, downward, or inward. (*c.*) Marked dilatation of the pupil. Vision was, however, unimpaired. There was no injection of the eye, nor cloudiness of the transparent media.

(2.) On the same side (the right) there was paralysis of the sixth pair; absolute abolition of all power to turn the ocular globe outward.

(3.) On the left side the phenomena were different. Here there

was neither ptosis nor pupillary dilatation, and the visual power was unimpaired. The eye perfectly executed all normal movements upward, downward and inward; but there was slight convergent strabismus. The power to turn the eye outward was, however, completely lost. There was then, on this side, paralysis of the sixth pair.

Her general health was fair; her skin free from eruption; there were no lesions of the vulva nor of other mucous surfaces; no adenopathy existed. The headache had been relieved, but the patient was occasionally subject to vertigo, migraine, and dizziness, attributed to the weakness induced by the ocular disease. There were some wandering pains in the right arm and shoulder of the same side.

The following treatment was ordered: Daily frictions, with one drachm of strong mercurial ointment; gargles of the chlorate of potash, to preclude or moderate ptyalism; three teaspoonsful of syrup of iodide of potassium (gr. iv ad. dr. j), and sulphur baths.*

* The mode of administering mercury, here recommended by Dr. Fournier, is worthy of note. Mr. Jonathan Hutchinson, in a paper read before the Hunterian Society, on the 8th of January, takes occasion to observe, that "the inunction method is safe and very efficient, but it is dirty and inconvenient, and probably nothing can be said in its favor which may not be alleged with greater force of the vapor bath." He adds, however, that Drs. Diemer, Wetzlar, Brandis, and Ziemssen, of Aix-la-Chapelle, believe inunction to be the preferable method.

Whether it be due to the fact that syphilis manifests itself largely upon the integumentary structures, or to the circumstance that the disease gains access to the system by a superficial lesion, certain it is that treatment by external applications early recommended itself to the profession. Subsequently little importance was assigned to the subject, from the circumstance that eminent syphilographers neglected to put forward its real value. But it is clear that there is a distinct reaction in the minds of medical men in favor of a return to treatment by the skin, and especially to the inunction of mercury. Prof. Lewins' hypodermic injections of corrosive sublimate, now extensively employed upon the Continent, and the increasing use of the oleates of mercury externally, indicate the direction of this current of opinion. I think it proper to take exception to the remarks quoted above from Mr. Hutchinson. A friend recently informed me that the patients in the venereal wards of the Vienna Hospitals were daily ranged into a long line, and each individual assiduously engaged himself in rubbing mercurial ointment into the loins of that one in the line immediately in front of him, under the direction of the hospital staff. Fournier himself deserves the credit of having, by his recent writings, called the attention of the profession to the real merits of this mode of treatment.

As to the comparison instituted between inunction and vaporization, it may be remarked, in favor of the former: 1st, that it can be accomplished by the individual unassisted by attendants; 2d, that it dispenses with elaborate and expensive apparatus: 3rd, that, when properly performed, the metal is made to penetrate the orifices of the emunctories of the skin—probably the sole avenue of ingress—and thus gains access to the sub-epidermic tissues; while it is admitted that the vapor merely deposits an exceedingly delicate stratum upon the superficies of the skin, with the exception of the rare instances where it is allowed to enter the respiratory passages; 4th, that the baths advised by Fournier do away with the objections on the ground of cleanliness, though it is in many instances, without

June 17. The treatment has been rigorously pursued. There has been some amelioration of symptoms, notably of the paralysis of the third pair on the right side. The treatment was continued, the amount of ointment used at each inunction being increased to two and one-half drachms.

June 24. Great improvement. The left eye could be turned outward almost to the external commissure. On the right, the lateral movements of the ocular globe were almost normal, from one commissure to the other, and the downward movements were in a similar degree restored. The eye could not, however, be turned completely upward, though this could be effected to a greater extent than was possible during the last few days. The pupil was still dilated, but the ptosis was so far diminished that at least one-half of the ocular globe could be unveiled. The diplopia, however, persisted. The treatment was continued, and the syrup progressively increased to four, five and six teaspoonsful daily.

July 1. The improvement continued, but was less noticeable than at the last date. The patient had discontinued the inunction because she had heard that "mercury was injurious to the teeth." Her mouth, gums and teeth were nevertheless free from any mercurial effects, and the treatment was consequently resumed.

July 8. The outward movement of the left eye was comparatively restored. Three-fourths of the right were exposed beneath the lid, and movements in every direction were executed with great facility, though the pupil remained dilated.† The general condition of the patient was at this time exceedingly satisfactory. Since the inauguration of the treatment she had gained considerably in flesh, a circumstance which she herself was the first to note, and which she said had also been remarked by her acquaintances. Her appetite, stimulated possibly by the iodide, was excellent. No stomatitis had occurred. Treatment: Six teaspoonsful of the syrup, inunction with four drachms of mercurial ointment, gargle of chlorate of potash, and sulphur baths.

doubt, preferable to order that the underclothing of flannel should be worn unchanged night and day during the persistence of treatment.

† The order displayed in this restoration of function suggests the following observation: A patient recently consulted the writer, whose first symptom of constitutional syphilis was the early form of iritis. Prior to infection there had been aggravated ophthalmia of the same eye, resulting from rubeola. This would seem to explain the selection of that organ for the evolution of the first one of the so-called secondary symptoms. The question arose: Would impairment of function in the nerves supplying any portion of the body determine to that part the manifestations of syphilis? Curiously enough, the question was soon answered by a male patient, who presented himself with long-standing paralysis and marked emaciation of the left lower extremity—sensation being unimpaired. He had recently contracted syphilis, and exhibited blotches over the surface of the body, the left leg alone remaining free from indications of the disease.

July 15. The treatment had been regularly pursued. The lid of the right eye was completely replaced; both eyes accomplished all normal movements, and the patient considered herself cured. The pupil, however, remained slightly dilated, and an ephemeral diplopia was still developed by certain movements of the eye-ball.

From this time we lost sight of the patient, till January 21, 1874, when she was induced to return, in order to consult us respecting a new ailment. She then exhibited a gummy tumor of the right leg, of four months' duration, which had not been submitted to treatment.

At this date the contents of the gummy tumor had been evacuated, and there resulted an excavated ulcer, as large as a silver quarter of a dollar, with clean-cut edges, a yellowish base, presenting still some traces of granulations where degeneration of the syphiloma had occurred, and a deep brown areola. The patient declared that the disorder of the eyes was completely relieved, and there was no evidence to contradict this statement. It was clear, on examination, that the once paralyzed muscles could execute their physiological movements. The pupil was no longer dilated, and the diplopia had disappeared.‡

The recurrence of syphilitic manifestations after an energetic treatment pursued for several weeks, is not surprising, since the disease develops itself in this manner with great frequency. Its career is but temporarily checked by the intervention of specific remedies, and, after brief pauses, is apt to display renewed activity. In order to gain a complete mastery over it, not only in the present, but in the future—in order to completely extinguish the diathesis—it is necessary, as I have elsewhere remarked (see No. 3 of this *Report of Progress*), to resort to multiplied and repeated courses of treatment. "Long, indeed, should be that antisyphilitic medication, from which are to be obtained not only those results which are evident, but those which directly influence the diathesis. A chronic disorder requires a chronic treatment—this is the rule. A syphilitic dyscrasia is neither modified, corrected nor annulled by any other than a long medication—a pro-

‡ Dr. W. H. Broadbent, in the first of his valuable lectures upon Syphilitic Affections of the Nervous System, recently published in the *Lancet*, remarks as follows:

"The twofold fact, that the third nerve is the most frequently affected and often the only one paralyzed, and, again, that portions of the nerve may suffer before the others, is explained by the habit of syphilitic exudation, of which the interpeduncular space at the base of the brain, traversed by the third nerve on its way to the cavernous sinus, is the favorite seat; and it is conclusive evidence that the paralysis is not due to periostitis at the orifice of exit. The nerve also has been found compressed by a gummatous tumor of the sella turcica of the sphenoid bone. * * * * * Paralysis of the sixth, the evidence of which is internal strabismus, is, perhaps, next in frequency."

cess of depuration, greatly extended and oft-repeated—in brief, by a chronic treatment." In the present case, the production of the syphiloma, consecutive to that of the ocular lesions described, is a fact in perfect accordance with our usual and daily experience. It simply testifies to the existing intensity of the disease, which it is important to control by a prolonged and energetic treatment.

But the interest attaching to the case reported does not lie solely in this fact. It is to be found in the *multiplicity of the paralytic symptoms* presented by the patient. Three nerves were involved—the third and sixth pairs of the right side, and the sixth pair of the left. That these three nerves were affected by syphilis, is evident from the mode of evolution of the disease, and the success of the specific remedies employed.

Now this *association of several forms of paralysis* is worthy of note. It is of more frequent occurrence in syphilis than in any other disease, as I have had occasion to demonstrate in numerous instances. It has, then, in a diagnostic point of view, a special significance. It is to this fact that the details given above testify, and I have here limited myself to the mere statement of the case, reserving for a special paper the considerations which it seems to me to suggest.

2. Gubler was the first to establish the fact, that saccharine urine, lodged in the præputial sac, undergoes lactic or acetic fermentation, in consequence of the presence of mucedinous spores in the secretions of the mucous membranes. Genuine balano-prosthitis is apt to result, accompanied by itching and tingling sensations, and sometimes producing a phymosis, for which the patient consults his physician. It is at this point that M. de Beauvais finds a fact of great clinical value.

If the causative relation of these two disorders be ignored, and no suspicion of the urinary disease exists in the mind of the practitioner, after trying in vain a purely medical treatment, he may advise surgical interference. Now this operation, like many others, is liable to serious complications in the case of diabetic patients, and the author cites cases of gangrene of the penis and scrotum, resulting from surgical procedures under these conditions.

It is evidently of great importance to determine the nature of the balano-prosthitis. Microscopic examination of the pus or muco-pus found in the præputial cul-de-sac, will, of course, disclose the presence or absence of the mucedinous spores, which are the sole causes of the disease. In the first event, diabetes mellitus should be sought for, and the urine analyzed. If sugar be discovered, all operative interference should be discouraged for the relief of phymosis, and topical treatment of the balano-prosthitis be conjoined with that general treatment appropriate to this constitutional disease.

It should be added that the species of irritation of the sexual organs, described above, is not peculiar to the male sex, but is found also in diabetic females. The same process of fermentation, discovered in the præputial cul-de-sac, here occurs in the vestibule of the vulva, and, extending to contiguous parts, produces an irresistible pruritus. The muco-cutaneous site of the lesion, and its illy-defined borders, taken in connection with some thickening and moderate desquamation of the derma, render the diagnosis clear. Here, also, the analysis of the urine and the microscopy of the vulvar secretion are essential to the recognition of the cause.

3. Tertiary syphilis comprises that group of syphilitic manifestations which occur after long periods succeeding contamination. The disease, in its tertiary periods, tends to a spontaneous disappearance; while, in some subjects, it brings about a fatal termination. The reason for this difference in its issues is to be found either in the disease itself, or in the character of the soil in which it is planted, or in the insufficiency of treatment.

(*a.*) To say that we find benign, virulent, grave and inveterate forms of syphilis, is to offer no explanation founded upon the nature of the disease. It is simply stating a fact. It is often true that the disease which is benign in its early periods, is brought to a conclusion in the tertiary stage.

(*b.*) The conditions pertaining to the individual who is the subject of syphilis, are important. These may be: Native or acquired constitutional feebleness, lymphatic temperament, anæmia, scrofula, old age, alcoholism, and the general causes of depression. Yet, however real these influences may be, they are not necessarily effective. Not unfrequently we encounter individuals affected with tertiary syphilis, whose conditions are exactly opposed to those described.

(*c.*) The true reason for the extension of syphilis to the tertiary stage, is the absence or insufficiency of treatment. Neglected syphilis, whatever may be said by authors to the contrary, is, in the majority of cases, certain to assume tertiary phases; and daily experience teaches us that expectant treatment, when employed in the disease under discussion, is sure to be followed by disastrous results.

Chronology. Three points of interest are here to be noted: the mode of transition from secondary to tertiary types; the epoch of the appearance of the first manifestations of tertiary syphilis; and the duration of the latter period.

As to the first, it is, of course, impossible to establish a fixed mathematical limit between the two stages. This is proven by the fact that such lesions as pustulo-crustaceous syphilides, rupia, ecthyma and sarcocele, can be indifferently ranged in either

group. It is to these transitional forms that such names as secondo-tertiary, transitionary, etc., have been applied.

Secondary symptoms are transformed into those of a tertiary type in one or the other of the following methods. First: Contemporaneous incidence of the two periods. In these cases a patient presents simultaneously a cutaneous syphilide and a syphiloma — this is common, but not in accordance with the rule. Or, second, (and much more frequently) there is a more or less complete and more or less prolonged cessation of syphilitic phenomena between the two stages of the disease.

The date of the onset of tertiary forms is very variable. Numerous conditions can defer this explosion, and among them none is more effective than prolonged and energetic treatment. Oftener, tertiary syphilis is not developed before the second or third year, and still more often before the third.

As to the limits of the tertiary period, we know that they may be very much restricted and long deferred. Ten, twenty, thirty years have elapsed after the appearance of the primary lesion, before tertiary syphilis has been developed, and in some rare instances forty, forty-two and forty-five. In one instance, M. Fournier treated a patient seventy-two years old, who had caries of the inferior maxilla and a gummy tumor of the thigh, respectively fifty-two and fifty-five years after the existence of chancre.

General characters of the tertiary stage. In general, we discover a condition of apparent health, interrupted, at indeterminate intervals, by various morbid explosions of a special character. Beyond certain exceptional cases, the man affected with tertiary syphilis is in fair health, but under the influence of a morbid yet dormant ferment, whose dangerous portents are often as inappreciable by himself as by his physician.

Secondary accidents have the following distinct features: — a determinate onset, preceded a few weeks by chancre; a group of pathological symptoms, succeeding each other at comparatively short intervals, and limited to a certain period; and a settled termination at the end of two or three years, after which these phenomena are not established.

Tertiary accidents are quite different. They may appear after two or forty years. When numerous, they are not associated, and may be separated by long intervals. They are unlimited as to time; it is impossible to fix a date beyond which they shall not be declared. More precisely, they have the four following distinguishing features:

(*a.*) Tertiary manifestations are discrete, isolated and solitary.

(*b.*) These manifestations are insidious in their approach, slow of development, and often latent as regards their evolution.

(*c.*) They involve the parenchyma of tissues. While secondary accidents are superficial and injure the tissues but slightly,

those of a tertiary type have a profound effect. Ulceration, disorganization, mutilation and atrophy follow in their track. The prognosis of the one form is favorable; of the other, serious. In the latter case some of the symptoms are common in non-specific disorders. Syphilitic laryngeal phthisis, for example, does not differ greatly from that of tuberculous origin — the gummy tumor produces a paralysis not different from any other, when it impinges upon a nerve—vomicæ resulting from ulcerated syphilomata resemble ordinary pulmonary excavations. Syphilis in its old age, loses the imprint of a venereal affection;—according to the phrase of Ricord, it "assumes a virtuous expression."

(*d.*) Tertiary manifestations are, with certain rare exceptions, amenable to treatment.

Syphilis invades the entire domain of the body in its tertiary forms; and in spite of the multiform character of the lesions of the latter, we can recognize in them but two distinct pathological processes—the sclerotic and the gummy.

As regards diagnosis, we must look first to the peculiar character of the lesion; second, to the coexistence of specific phenomena; and, third, to specific antecedents. But, per contra, there are few lesions of tertiary syphilis which exhibit a pathognomonic symptomatology, and in general these lesions are isolated and unaccompanied by other indications of disease which would make the diagnosis facile and sure. In addition to all this, syphilitic antecedents, especially in women, are often forgotten, misunderstood or concealed; while the long interval which is apt to occur between early and late manifestations, constitutes a source of error. The situation, moral character and social positions of patients, is not without influence upon the mind of a practitioner.

Prognosis and Treatment. The two are intimately associated—the former, always serious, often grave, and, more often than is generally believed, fatal. Due weight should be given to the seat, extent and stage of the disease, as well as to the condition of the patient. "Pox once recognized, is half cured," is a common saying, and never more true than in tertiary syphilis, which is more amenable to specific treatment than either primary or secondary disease.

The iodide of potassium is marvellous, incomparable, in its effects; but even in combination with mercury, is not infallible. If the intervention of the remedy be too late, or if, as in cerebral syphilis, morbid processes of non-specific character are induced by the syphiloma, rebellious syphilis results. Some cases are altogether beyond the reach of therapeutics — they are always in curing and never cured. A fatal evolution of the disorder occurs, and lesion after lesion is produced in spite of all the remedies employed.

Syphilis, is, in general, not as formidable in our eyes as it is in

reality. Every syphilitic is not curable, as many suppose, because he is syphilitic. They who are most familiar with the scourge, entertain the greatest dread of it. If then, in conclusion, syphilis exposes its victims to the gravest danger in the distant future — a danger whose consequences we are but too often powerless to avert — it is of the greatest consequence that it be combatted *ab ovo*.

Prevention is of much more ready accomplishment than cure. All treatment therefore should be instituted at the debut of the diathesis. In treating a case of incipient or recent syphilis, the result to be attained by the physician is the elimination of the possibility of the future occurrence of tertiary disease. The ideal to be kept in view is the extinguishing of the diathesis, as a safeguard for the future; and, to secure this end, immediate, energetic and prolonged treatment is requisite.

4. There is a manifest sympathy between the uterus, ovaries and integumentary system. This sympathy declares itself either in the form of eruptions whose appearance coincides with menstrual epochs, or in the development of uterine derangements, or in the disappearance of morbid cutaneous phenomena at the arrival of puberty, or after the relief of dysmenorrhœa. In explanation of this, it may be said that the affections of the skin present a striking analogy to diseases of the nervous system, —some of them exhibiting a hyperæsthesia (herpes) — some, a neuralgic condition (zona) — some others an anæsthesia (lepra); while it may be remarked that of all the systems of the human economy, the nervous is that which is the first to reflect disorders of the womb (hysteria.) We are thus enabled to appreciate the fact that cutaneous diseases connected with menstruation or any of its derangements, are in fact reflex neuroses. It should be added, that this sympathy is not evident in the case of all patients, and that in comparatively few, is it established in a high degree.

5. Poncet reports to the Anatomical Society the result of his observations of the bodies of newly born infants, affected with syphilis. Of the twelve cases reported, some presented evident external symptoms of the disease, and the others in every instance were born of parents—father or mother—equally affected. It would appear from these examinations that alteration of the osseous tissue in newly born syphilitic children, is the most frequent of all the symptoms of infantile syphilis, occupying, in fact, the same rank with the mucous patch of the adult.

It should be added, by way of parenthesis, that this observer has concluded that the changes noticeable in the dental enamel, are to be attributed to the maceration of the fœtus in the amniotic liquid; since he has not only discovered this condition in the bodies of non-syphilitic infants, but has also produced the same,

artificially, by macerating the maxillæ and teeth of dead-born infants for several days in the same fluid.

We have space merely for the following table, which summarizes the observations referred to:

No. of Case.	Parental Syphilis.	History of Parents.	Age of Child.	External Symptoms.	Lesions of Osseous Tissue.
1	Unknown.	Unknown.	3 wks.	Mucous patches of anus and labial commissures.	Slightly marked alteration of bones.
2	Unknown.	Unknown.	1 mo.	Coryza.	Pus in right elbow and both hip joints, from arthritis of soft parts. Articular surfaces sound. Central alterations of all osseous tissue.
3	Abortion at 6½ months.	Two previous abortions at three and four mos. No evident syphilis.	Dead born.		Special lesions of bones.
4	No signs of syphilis in mother.	Mother had been mistress of several syphilitic patients.	3 mos.	Eczematous eruption.	Bones easily fractured. Slightly marked rachitis.
5	Mother: mucous patches of throat & vulva.	Untreated secondary syphilis appeared 3 months before.	Dead born.		Characteristic alteration.
6	Mother: after confinement, no appearance of syphilis.	In hospital ten years before for mucous patches; 17 months before, same hospital, syphilitic treatment.	3 d'ys.		Sound tissue.
7	Mucous patches of vulva.	Secondary syphilis, untreated; 2 mos. after conception.	Dead born.		Special lesions.
8	Mother, non-syphilitic.	Father, aged 21, had chancre at 15 years. No treatment.	Only 3 or 4 respirations	Large bullæ of pemphigus. Papules on dorsum and venter.	Epiphyses of long bones all mobile, separated and held only by periosteum. Pus beneath the latter in left femur; radius and humerus of both superior extremities.
9	Abortion at 6½ months.	Secondary syphilis appeared one month after conception.	Dead born.		All epiphyses of long bones separable and moderately mobile.
10	Mucous patches of throat.	7 months pregnancy.	3 d'ys.		Sound tissue.
11	Non-syphilitic mother.		12 d's.	Papular eruption.	Special lesions.
12	Mother treated in hospital for secondary syphilis.		6 mos.		Evident rachitis.

6. On the 1st of October next, it is expected that the *Archives of Dermatology* will appear, from the press of G. P. Putnam's Sons, under the editorial management of Dr. L. Duncan Bulkley. This Journal will be issued quarterly, under the auspices of the New York Dermatological Society, and will be devoted to Diseases of the Skin and allied affections. It is designed to represent particularly the American School of Dermatology, while an epitome of the current literature of this subject in our own and foreign countries, will be published in each number.

The pages will be arranged under the following heads: 1, Original Articles; 2, Transactions of the New York Dermatological Society, including papers, cases and discussions; 3, Clinical Reports; 4, Extracts and Translations from other Journals; 5, Digest of Dermatological Literature; 6, Reviews and Book Notices; 7, Correspondence, and Miscellaneous Matter. Suitable illustrations will be inserted as required, and special attention will be given to photography and microscopy.

We take pleasure in making an announcement of this character, and are desirous of giving a welcome in advance to the project of our co-laborers. They enlist our sympathies in the mere announcement of their design. We have looked for the work of our American Dermatologists in those pages of the *American Journal of Syphilography and Dermatology* which are consecrated to original communications, and we have looked in vain. We find there, translations of foreign articles, which are already in our hands in the journals which first produced them—translations which, while they are often defective and poorly executed, yet, in the main, possess an excellence which renders them valuable to the general student of this species of literature.

We look to the *Archives of Dermatology* to give expression to the opinions and work of the American School of authors—of whom we have every reason to be proud—and wish it may meet with that success which it will be agreed that it deserves.

Reports of Societies.

Chicago Society of Physicians and Surgeons. *Transactions at Regular Meeting, Monday, July* 27, 1874. Reported by RALPH E. STARKWEATHER, M.D.

The Society met, as usual, in one of the parlors of the Grand Pacific Hotel, Dr. J. E. Owens, Vice-President, in the chair. After requesting Dr. H. A. Johnson to take the chair, Dr. Owens read a paper upon Thermometers, of which the following is a summary:

The experiments and observations had extended, at intervals, through three months, as many as fifty-five self-registering fever thermometers having been examined and tested. In view of the constant necessity for the use of this instrument at the bedside, the profession ought to know the character and worth of the fever thermometers offered for sale. Contrary to the popular supposition, these experiments have shown that the thermometer is not an unerring measure of temperature, unless proper care be exercised in selecting the thermometer. A large number, offered for sale in the shops, do not register correctly.

Every thermometer should be compared with a test instrument, one in all respects standard and reliable.

The indices having been shaken to the same level, approximately, each lot was tested in warm water. In one lot of instruments examined, it was found that no two registered alike; in another lot the errors were from three-fourths to one and one-half degrees Fah. Each instrument remained beneath the tongue four minutes in this trial. In a fourth collection, the index of one thermometer could not be moved, while that of another had been lost in the mercury below, and could not be disengaged; while no two gave the same registration, comparing them with a test thermometer made by Beck, of London, of ascertained reliability and accuracy. In a sixth lot of eleven, only one registered correctly.

The instruments above spoken of were mostly of American manufacture, not marked by their makers' names, and almost entirely unreliable. They are unworthy the patronage of the profession.

The English thermometers, made by Maw, Son, Thompson, and Lynch & Co., being tested, varied only by one-fifth of a degree, and are more worthy of confidence. All instruments that are not known to be correct should be tested with a Casella thermometer. Mr. E. H. Sargent, of this city, a prominent dealer in instruments, has allowed the use of the English thermometers, above spoken of.

Dr. Johnson—In regard to the index of a thermometer, I have long been satisfied that some thermometers will not always register the same in the same conditions of location and temperature. The mercury bubble adheres to the side of the tube and does not flow readily. Sometimes it goes up with a jump, and beyond its true level. There ought not to be a variation of even the one-half of a degree. Select an instrument in which the index will move readily; the more easily it does so, the more reliable it will be. If the index moves by starts, fitfully, it should be rejected.

Dr. Hyde, the Secretary, exhibited a cornu, removed from the forehead of an Irish washerwoman fifty-three years old, by Dr. McArthur. She had been operated upon by Dr. Andrews, three years

before, who removed at that time a cystic tumor from the anterior part of the left frontal bone. It was presumed that part of the cyst had been left *in situ*—"the root," as she termed it—since the growth returned where the cicatrix had formed. Six months prior to date, her son had sawn off a portion of the horn as large as that which was removed by the knife. The patient presented herself at the Dispensary, not because she suffered any pain, but because the growth was a source of annoyance to her on account of the ridicule it excited among her neighbors. She has at present six or seven wens upon the occipital and parietal regions, which she refuses to have removed for fear that similar horns would subsequently appear in the cicatrices that would result. The specimen presented was nut-shaped at its extremity, and of even thickness.

As to the cause of the origin of the horns, Dr. Hyde said that Drs. Wilson and Fox regarded the cornu as a development of the sebaceous glands. Neuman, however, whose views of the pathology of this subject would be of great weight and authority, says that the growth is due to the development of the papilla of the corium. It resembles a wart or a corn. The sebaceous follicle is an appendage of the hair. The hair, nail, and tooth, are identical, so far as the type is concerned: all proceed from a papilla. A French writer has reported one case in which the cornu had three extremities.

Dr. W. C. Lyman stated that he had removed a cornu, an inch and one-quarter in length, from the centre of the lower lip.

Dr. Johnson exhibited a small electro-faradic machine, with a chloride of silver battery, combined in a pocket-case. It weighs only fourteen ounces. This battery does not need to be prepared each time it is required for use, there is no acid or fluid of any kind, and it is much cleaner than others. Its strength is sufficient to run the helix of the largest size of the Kidder apparatus, and may be moderated at pleasure. It will run continuously ten and even twelve hours before needing renewal. The induced current is sufficient for medical purposes. There is, also, the extra current; and either form may be used; or, thirdly, the current resultant of the first two may be used.

The battery itself is the chloride of silver and zinc. The elements are composed of a strip of zinc and another of chloride of silver. It is moistened by the chloride of sodium. These are enclosed in a hard rubber case, with a top screw on, by which it is hermetically sealed. Two elements go with each case, and can readily and quickly be detached from the rubber case when exhausted, and new ones substituted. The machine is set in motion by moving an armature. Metal handles, or electrodes, are also provided.

Dr. N. S. Davis then addressed the Society upon the subject of diarrhœa in children.

Dr. Hyde—In diarrhœa we all look at the stools, and compare them with our idea of a normal stool. Will Dr. Davis tell us what such ought to be, in a child eight to twelve months, in summer, and while teething?

Dr. Davis—My idea is that a normal stool would be the same as it would be in a cold day. Teething has no influence upon it. I cannot understand how it is that the teeth become poisonous in hot weather, when, in winter, dentition goes on harmlessly. A natural stool varies from a soft semi-fluid, up to a well-formed, consistent stool, retaining the shape of the intestine. If much beyond simple softness, it is abnormal. The color may be a little more yellow than usual. A great many slight cases of diarrhœa have stools of thinner consistence, unpleasant yellow color, and very offensive odor. As to the significance of the green stools, or their afterwards turning green, this may be due to the bile matter, but not always. The matter from the solitary glands of the large intestine may assume a green hue. You can test for bile in the stools.

Dr. Hyde had noticed that in classes of adults, those of different complexions had different color of stools. The same was true in regard to dogs; those white, had white-colored stools; those black, the Newfoundland, for instance, had black-colored stools. It is very much so in children. He laid less stress upon the color of stools than he did upon their homogeneity and consistence.

Dr. Davis—To prevent mistake, I will state that I look to the consistence and the homogeneity of the stools, and whether they are mucous. If the stools are consistent, I regard the patient as nearly well. The color is nothing, unless very markedly changed, when it will indicate suppression of the secretions, which must not be neglected. The more you physic a patient, the less likely you will be to have the true secretory organs collateral to the bowels acted upon, and the nearer you will approach to the true choleraic condition. Hence, if you want to act on the secretions collateral to the bowels, keep the latter quiet, and increase excretory action by minute doses of alteratives and diuretics. Many a child has been killed by trying to carry off the secretions by active cathartic medication.

Dr. F. H. Davis had seen the statement that the diarrhœa of children was unknown on the Continent, and was peculiar to American cities. Perhaps this suggests the origin of the disease. Some say it is malarial, and treat it with quinine, in combination with opiates.

Dr. Simon—It seems to me that there is some coincidence in the relation between the color of the fæces and the complexion. Physiology teaches that the pigment cells take their origin in the liver.

Dr. Oleson was referred to as treating infantile diarrhœa by the potassium bromide, believing that it operated by allaying the irritability of the mucous lining of the bowels.

Dr. N. S. Davis—Some three years ago some reliable writer proposed a similar treatment. I have used it in a few cases, alone, and, more often, combined with paregoric, in camphor water. The effects have been pleasant and favorable. In certain cases, where he could not gain time enough to control the bowels, and there were cerebral symptoms, he had used the bromide and paregoric. There need be no fear in using the bromide alone, but there would probably be need of the paregoric.

Dr. H. A. Johnson had been in the habit, for the past eight years, of using the potassium bromide in cases where he did not desire to give opium, to allay irritability, and in the early stage of diarrhœa. He knew of similar practice in the U. S. Army. The irritability is not a primary disease, but is the result of less tonicity. I am quite sure the bromide will check the disease; it stimulates the urinary excretion, allays the nervous system, the irritation and peristaltic action of the bowel. The potassium bromide may be given, to a child one year of age, in two to four-grain doses, every four hours, and in pretty full doses as compared with adults; often enough to procure rest.

Dr. Etheridge had had limited experience with the bromide in the treatment of diarrhœa in children. He had found that the number of the discharges in the first twenty-four hours had not lessened, but their character had improved, and the child was better. If the use of the bromide was continued after the child was better, you would get brominism, with its eruption.

Upon motion, the Society adjourned.

Transactions at Regular Meeting, Aug. 10, 1874.

The Society met as usual in Parlor No. 1 of the Grand Pacific Hotel.

Dr. A. Fisher was, upon motion, called to preside, the two Presidents being unavoidably absent when the hour for business arrived.

The names of Drs. H. N. Hurlbut and F. L. Wadsworth were proposed for membership, and referred to the Board of Censors.

Dr. Etheridge read an exceedingly interesting article, which he had translated from the *Progres Medical*, being a paper by Dr. H. Chauppe on "The Therapeutical Study of Ipecac, when used in the Sweats of Pulmonary Phthisis." The following is a brief summary:

The history and details of twelve cases of phthisis, in its various stages, were given with much minuteness, and were divided into groups illustrating the results, more or less favorable in degree and duration of relief. Each group of cases was reviewed, from

which certain deductions were drawn, and objections noted and refuted. To one objection, that the injections of ipecac act, in sweatings, only by means of the tannic acid which they hold in solution, it was answered that in two cases where tannin had been given in rather large doses, no amelioration was produced; the ipecac clysters promptly arrested the sweats. The atropia sulphate, drachm doses of quinia tannate, or six-grain doses of tannin itself, had not controlled these cases of sweating. In these twelve cases, ipecac was found to act quite constantly in night sweats, with much benefit. It should be used in rebellious cases, when the excellent remedies above mentioned prove futile.

The different types and forms of sweating were then adverted to, and attention called to a point long neglected: Are the sweats preceded, or not, by fever? *Does the exhaustion follow the cold or hot sweats?* Probably in these two cases of sweating, the treatment for the sweats ought not to be the same. This problem still awaits solution. In most of the cases where ipecac has a good effect, the fever is noticed to precede the sweats.

Mode of Administering—Doses. We believe that the exhibition of ipecac, per rectum, is a veritable progress in treatment, and this method is due to M. Bourdon. It may be given in large doses, and for a long time, without producing a single mishap. We have used this form of decoction of ipecac: R. Powdered ipecac root, grains 154; pure water, grammes 100, by weight. Boil until reduced to 30 grammes. Filter this decoction. Prepare a second decoction, analogous to the first one, mix the two, and add five to ten drops of Sydenham's laudanum. It is better to use a glass syringe. Give one injection only, and as late as possible at night. Where the Brazilian potion was used, it consisted of the decoction of ipecac prepared as above, but reduced to 45 grammes, to which was added of the syrup of ether 15 grammes. Divide into three parts, and give one part every quarter of an hour.

CONCLUSIONS.

1. Ipecac, even in large doses, administered per rectum, does not produce vomiting or gastric disturbance.

2. In many cases of infantile diarrhœa, injections of ipecac act favorably.

3. Diarrhœa of the tuberculous was beneficially influenced; often for a long time cured, by ipecac in large doses. The autopsies afterwards made in some of these cases, displayed no organic lesions of the mucous membrane of the intestines.

4. The action of ipecac, upon phthisical sweats, has been the most frequently favorable.

5. Ipecac seems to act by absorption.

6. The tannin is in too small a quantity (gr. 1½) in the decoction, to have the therapeutical effect attributed to it.

Dr. D. A. K. Steele, of the Cook County Hospital, reported four cases of land scurvy. One patient was a Norwegian, a cabinet-maker, who had been living in abject poverty for several years. He was very melancholic, and neglected personal cleanliness. The disease had been progressing for many months. His bowels were very costive; had moved twice in four weeks. His condition was one of extreme anæmia and debility. Gums swollen, mastication difficult, limbs œdematous and ecchymotic; at the knees, the swelling prevented flexion and extension. With the first sound of the heart, there was a soft murmur.

The other three cases were in boys eight and nine years of age, who had been living in an asylum, whose wards were greatly overcrowded, and whose dietary had been very deficient in vegetables. Symptoms and condition very similar to the first case, but less severe; though one of the boys had lost two teeth. The treatment consisted in a liberal allowance of vegetables; also acid drinks; also ten drops of tr. ferri muriatis every four hours, to the boys; twenty drops to the adult; also a gargle of potassium permanganate, one grain to the fluid ounce. Dr. Steele said that scurvy is a very difficult disease to cure, but thta these patients, particularly the boys, were fully convalescent.

Dr. Hyde brought before the Society the subject of prescribing proprietary medicines or remedies—a practice so largely on the increase in this city that six out of nine of the prescriptions received by the average grade of drug-stores (perhaps not so large a proportion by the best class of stores) ordered proprietary medicines, and even named the makers of the goods. He entered his protest against such practice, and against the swarm of traveling salesmen who throng into the offices, peddling their samples of medicines, repeating their glib stories with tiresome sameness; thus they go the rounds, month after month, and leave their bottles behind them, hoping by donating a few samples to increase the demand for their goods. What is the effect upon the wholesale drug-dealer? His stock will be made up of *proprietary medicines*, one-sixth; *patent medicines*, one-third; *paints* and *oils*, one-third; and the balance, one-sixth, of *drugs* and *medicines for prescriptions.*

Mr. A. E. Ebert, a leading druggist of this city, editor of *The Pharmacist*, and lately President of the American Pharmaceutical Association, was present, and, by request, addressed the Society substantially as follows: Twenty years ago, the wholesale druggists sold—in equal quantities—drugs and patent medicines. Fifteen years ago, the fluid extracts and preparations of the so-called "elegant pharmacy," became the fashion. In 1860, the Pharmacopœia fixed the strength of fluid-extracts, but no honest, conscientious pharmacist can prepare them, and compete successfully with the dishonest manufacturer. Mr. Ebert exposed the vagaries

of the elixir and the sugar-coated pill business, and various adulterations; one of these, consisted in taking the silver coin of the country and making the same into nitrate of silver; in one instance, he found one ounce of pure copper in thirteen of nitrate of silver. The makers of many articles of "elegant pharmacy" cannot by any exertion sell their goods in their own cities. The people are learning to do without physicians and can go to the stores, look at the medicines, and buy whatever they choose. It injures the physician, and degrades the pharmacist; makes middlemen of them, and kills off all incentive to accurate, scientific, honorable pharmacy. The only way in which to quell this evil, is to cease mentioning names of makers, and to order only the officinal remedies authorized by the U. S. Pharmacopœia.

Dr. Hay said that the remarks of Dr. Hyde and Mr. Ebert suggested the relations which ought to exist between the druggist, pharmacist and physician. After referring to the attacks, lately made by the secular papers, upon the profession, alleging that physicians were defrauding the public and their patients by collusion with druggists from whom they received a commission on prescriptions, and other perquisites, he said that if these charges are true, it is quite time that we should relieve ourselves of the odium; if false, let us refute them. He was interested in the profession, its standing, its integrity—honor—and the confidence it receives from the public, which is the sole basis on which it rests. He had made some inquiries and investigations, which had induced him to think that the charges, as made, were true. He would, therefore, introduce the following preamble and resolutions, which, upon motion, were passed without one negative vote, in a meeting of above the average attendance of members:

WHEREAS, The medical profession of Chicago, on several recent occasions, has been charged in the *Chicago Times* with collusion with pharmacists for the purpose of extorting money from their patients; and,

WHEREAS, This collusion is alleged to be effected in various ways: such as—

1. The use of prescription papers bearing the business cards of pharmacists;
2. The occupation of offices free of, or at nominal rent, adjacent to or belonging to pharmacists;
3. The writing of private formula understood by certain pharmacists exclusively;
4. The acceptance of commissions upon prescriptions from pharmacists; and,

WHEREAS, The practices above designated, although deprecated by many always, have been maintained by many others innocently and in good faith, unsuspicious of their abusive application; therefore, be it

Resolved, That the Society of Physicians and Surgeons of the City of Chicago recognize the fact that the practices above designated tend to the degradation and demoralization of the medical profession, and to the diminution and withdrawal of public confidence upon which its existence depends.

Resolved, That the members of the Society pledge themselves, as individuals and as an organization, to discontinue the practices above designated, so far as they may have adopted them, and to discountenance them in others so far as their influence may extend.

Resolved, That the Society regards the acceptance of commissions upon prescriptions, by physicians, from pharmacists, as positively disreputable and dishonest, and to be deemed a sufficient cause for the rejection of an applicant for, or for the expulsion of a holder of membership herein.

Dr. Jackson, in seconding the adoption of the resolutions said that it was a growing evil, and that so far as it rests with us, we should shake it off.

Dr. Hamill—I heartily concur with the sentiment of the resolutions.

Dr. Etheridge—The evil is imaginary rather than a real one. He had called on a few of the leading druggists, and found that they never allowed commissions. He was astonished to find so little of it. It is the charlatans who bring these charges upon us. Are we not fighting a phantom?

Following remarks by Doctors Hamill and A. Fisher, Dr. Jackson said, that he hoped the practice was much less than was alleged, but thought that where there was so much smoke there must be some fire; and alluded to an incident where a medical friend of his had had a bottle of perfumery and a roll of bank bills presented to him by an apothecary, as a commission for prescriptions. The money was indignantly returned, and his friend forever afterwards withheld his patronage from that druggist.

The following resolution was proposed by Dr. Hyde and seconded by Dr. Hay:

Resolved, That a committee of three be appointed by the chair to co-operate with a similar committee from the Chicago College of Pharmacy (should such be appointed) in order to consider what, if any, measures are requisite in order to correct the great and growing evil in our midst of the prescribing of proprietary medicines, by name or otherwise, and of the accepting of samples of such medicines as are distributed in this city by the agents of eastern wholesale drug houses. And that such joint committees (should concurrence be had) report in full to the Society for such action in the premises as may seem to be desirable.

Mr. Ebert was of the opinion that the College of Pharmacy would co-operate.

The resolution was passed by an unanimous vote, and Doctors Hyde, Hay and Etheridge were appointed as such committee.

Dr. Jackson, on behalf of the Fee-Bill Committee, reported a schedule of rates for fees. The Committee were directed to confer with a similar one of the Chicago Medical Society.

Upon motion, the Society adjourned.

Chicago Medical Society. *Transactions at the Meeting of July* 20, 1874. Reported by WILL T. MONTGOMERY, M.D.

The Society met as usual in the parlor of the Gault House, the President, Dr. Quine, in the chair.

In the absence of the Secretary, Dr. Graham was elected Secretary *pro tem.*

The special order for the evening being report of Section on Obstetrics, Dr. A. B. Strong read a paper on Fœtal Pulsation. Dr. D. A. K. Steele read a supplemental report on the same subject. It was moved and carried that both papers be published in the report of the Society.

In the discussion of the papers, Dr. C. M. Fitch said he had made examinations in eleven cases for the purpose of determining sex, and predicted correctly in nine. When the pulsations were over 140 per minute, he predicted a girl; when under 130, a boy. Between these two numbers, he was doubtful. He thought a stethoscope, with a metallic bell, preferable in these examinations.

Dr. Paoli could not see any practical importance in determining the sex of the fœtus in utero. He was not aware that the sex made any difference with regard to preparations of clothing, etc. He could see how it might be of importance to crowned heads to know the sex before birth, in that they could then be prepared to celebrate the birth of prince or princess, as the case might be.

Dr. Bridge said while the determining of sex might not be of practical importance, the facts which may be gained in reference to the health and presentation of the child, and condition of the placenta, are of much importance.

Dr. T. D. Fitch—We may very well say that these investigations are of no practical interest, but they are of much scientific interest. He did not think it practically important to determine before birth the condition of the child or placenta, as the physician should be prepared for any emergency that might arise.

Dr. Seely—It may not be necessary to determine the sex before birth, but if we are able to do this we may gain the confidence of our patients, which is not to be despised.

Dr. Graham agreed with Dr. Fitch as to the scientific interest of these investigations.

Dr. Montgomery had made examinations in a number of cases with reference to determining sex, and was generally correct in predicting a girl when the pulsations were over 130, and a boy, when they were under 130.

Dr. Strong said that in the first eight cases which he examined he was correct in predicting the sex, and he thought a greater number of cases were required if we wished to aim at conclusions of value. He referred to a case of contracted pelvis, reported by Dr. Wilson, in which the determining of sex in utero was of practical importance.

Dr. Steele thought the determining of sex in utero might be of value in a medico-legal point of view.

Dr. Van Buren wished to know if there is any truth in the theory that gestations of mothers carrying male children are longer than of those carrying female. He also wished to know what effect protracted labors have upon the fœtal pulsations.

Dr. C. M. Fitch had seen a child delivered after a protracted labor of forty hours. The child proved to be idiotic, and he thought this was the result of the long-continued pressure.

Dr. Stilliaus had seen a similar case, and thought the injurious effect of continued pressure was an argument against the use of ergot.

Dr. T. D. Fitch said in reference to the length of gestations he had observed that those of mothers carrying male children were longest, and if the mother went over her time, he was generally correct in predicting a boy.

President had not heard of any reliance being placed on the length of time of gestation. He had made a number of observations in reference to determining sex by auscultation, and had usually been correct. The position could not be so reliably determined by this as by external manipulation. He thought inflammation of the placenta could be diagnosed by repeated auscultations.

Dr. Bartlett—An exceedingly slow pulse, as seventy to eighty, is very unfavorable to the child, and when it is observed, delivery should be effected as soon as possible. He had been called, within the last week, a distance of four miles, to see a lady, and when he arrived at her house learned that all she wanted him for was to tell her whether she was going to have a boy or girl.

Dr. Foster does not believe the length of time of gestation is a true indication of sex. He recently attended a lady on the 285th day, and delivered her of a girl.

Dr. Bridge gave an explanation of the marked influence the contractions of the uterus exercise over the fœtal pulsations. He thought the great diminution in the number of pulsations at the height of contraction was due to the circulation being cut off so that the blood in the placenta and fœtus became poisoned from non-aeration.

After miscellaneous business was disposed of, the Society adjourned.

Transactions at Meeting of Aug. 3, 1874.

Society met as usual, in the parlors of the Gault House, the President, Dr. Quine, in the Chair.

Dr. Quine read a paper presenting the most important facts from a record of a number of cases of puerperal metritis, metro-peritonitis, and puerperal septicæmia, which had occurred in Cook County Hospital. He said he wished to present the paper as

introductory to the subject of puerperal fever which he hoped to consider more fully at a subsequent meeting. In the cases presented, the line of distinction between the three diseases was pretty clearly drawn. With reference to treatment, blisters and poultices to the abdomen were used in all cases. The chief treatment in the cases of simple metritis was veratrum, or aconite combined with opium sufficient to relieve pain, and attention to cleanliness. The cases of puerperal septicæmia were treated substantially as typhoid fever. The opium treatment was used in the cases of metro-peritonitis. In two cases that recovered, dr. ss. of morphine was given for several days in succession. The pulse was kept between four and eight in the minute. To one patient gr. vij of morph. were given several successive hours, and for two days previously gr. v were administered every hour. The morphine was gradually withdrawn three days before death, and while it was used, no effect was noticed on the pulse or respiration. Veratrum was faithfully tried, but invariably increased the frequency and diminished the fullness of the pulse. Quinine had a marked effect in diminishing the intensity of the fever. His experience is decidedly in favor of opium and quinine.

Dr. C. M. Fitch had seen five well marked cases of puerperal fever, and all were fatal. He related a case following an abortion, which forcibly impressed him with the contagiousness of the disease. All he had read on the subject had been eminently unsatisfactory.

Dr. Jacobson had seen local depletion by means of leeches to the abdomen used a great deal, but has not been encouraged to use it in his own practice. He has seen good effect from the use of collodion to the abdomen; said there is a great difference in regard to prognosis in different epidemics. Little can be done after the disease is well established. We cannot exercise too much care in regard to prevention by contagion. He thought the disease often arose from products of the uterus retained by inertia, and recommended the use of ergot in cases of faulty contractions. Referred to two cases in which decayed fœtuses seemed to be the cause of the disease.

Dr. T. D. Fitch had had but little experience with the disease in private practice. He agreed with Dr. Jacobson in reference to the importance to prophylaxis. Patients may be infected by the physician after making autopsies or attending erysipelatous cases. The greatest care should be observed in disinfecting the hands and clothing. He coincided with the views of Dr. Jacobson with regard to the retained products of the uterus and ergot. He is particular to give ergot in all cases in which there has previously been post partum hemorrhage or inertia. Injury to the parts may be an exciting cause of the disease. As regards mortality, much depends upon the severity of the epidemic. In the treatment of puerperal cases he secures an early evacuation of the bowels, and prefers castor oil. Does not use vaginal injections unless the discharge

are offensive. He usually begins the treatment of the fever by giving veratrum in gtts iv doses, and increases the dose until the pulse is brought down to 60 or 70. In malignant cases veratrum will not reduce the pulse, and stimulants are indicated. He uses blisters but never bleeds; withdraws the veratrum as the case progresses. Does not believe in heroic doses of opium, but gives sufficient to control pain.

Dr. Stilliaus had never had a case of fever in a patient which he had delivered, and had flattered himself that it was due to his management of his patients. He uses vaginal injections in all his labor cases.

Dr. Strong had seen eight cases, six died and two recovered. One of the cases that recovered was leeched; and in the other, stimulants and quinine were used.

Dr. Paoli said that we labor under the delusion that these cases sometimes recover. He did not believe any well marked cases ever recover, and he did not believe any gentleman would swear that he had seen such recover. He did not believe that it was always possible to distinguish between the different puerperal diseases. Condemns bleeding, and says that veratrum does not have any curative effect, but only controls the severity of the symptoms. So with quinine. Did not think any medicine had any curative effect in this disease. A thorough examination will always discover pus in the blood of true puerperal fever cases.

Dr. Millard had never been able to distinguish between puerperal fever and peritonitis. Had had success from venesection in the treatment of these cases. Thinks the thorough contraction of the uterus after delivery important.

Dr. Taggart had seen the veratrum and opium treatment used in an epidemic in Buffalo with unsatisfactory results.

Dr. Van Buren does not know what puerperal fever is. He had been taught from books that it is an inflammation. If we knew just what it is, we might treat it intelligently. He said if there is any truth in the poison theory, he thought it was important to secure firm contraction of the uterus. Had never seen but one case of the fever, and that died.

Dr. Etheridge inquired as to the large doses administered to the case of Dr. Quine, if the patient really took gr. vij of morphia for a number of hours in succession.

Dr. Quine said the dose was gradually increased up to gr. vij, and repeated a number of times. Such heroic doses were only administered to the one case. He said some important points had been brought out in the discussion that were not alluded to in the paper. First, as to the contagiousness and nature of the disease. He had used the term generically. Does not think there is any connection between puerperal fever and other inflammations. The poison may enter the system through any open blood vessels.

He thought puerperal fever might occur before confinement, and referred to a case in point. Had never communicated the disease, and latterly had not used great care. The specific virus may be readily communicated by one and not by another. One midwife had recently furnished him eleven malignant cases. He had seen cases in which the injudicious use of cathartics seemed to aggravate the disease and hasten a fatal termination. He had used quinine and nux vomica in cases of inertia with good effect. Quinine is the most efficient remedy in restraining the disease, and he administers to cinchonism. Had used stimulants in most cases. Pain is not a marked symptom, and he did not give opium for its anodyne effect but for the specific effect he thought it had upon the inflammation. He was as sure as he could be, without an autopsy, that he had seen true cases of puerperal fever recover.

Dr. Mary Thompson asked, Is it right for a physician to go from a case of eruptive fever to a case of confinement?

Dr. Paoli answered, in his usual positive manner, *No.*

After miscellaneous business was disposed of, a motion to adjourn prevailed.

The Hospitals.

Cook County Hospital. July 10, 1874. Medical Clinic. By Dr. H. M. LYMAN.

A woman with chronic diarrhœa, tongue very red, was receiving four times a day teaspoonful doses of turpentine emulsion, to which was added a little laudanum. There is one fluid drachm of turpentine to the ounce.

A patient with acute gastritis (vomiting of blood, and likewise discharging the same from the nose), due to alcoholic excesses, was receiving scruple doses of potassium bromide every two hours.

A German, of thirty-one years of age, was under treatment for the insomnia and restlessness attendant upon a drunken spree. He received the following: R. Potassii bromidi, oz. j; chloral hydratis, dr. vj; syrupi simplicis, aquæ, *aa* f. oz. ij. M. Sig. one teaspoonful every four hours.

SURGICAL CLINIC, by Drs. BOGUE and FREER.

The case of osteo-aneurism, reported in the last number of the JOURNAL, terminated fatally July 5th. The patient had left the hospital soon after the operation, but continued to lose strength. A fungoid growth sprung up in the cavity of the wound, attended with capillary oozing and hemorrhages, which resulted at length in death.

Pleuritic Abscess—Fracture of Right Humerus—Luxation Right Shoulder, four months' duration—Railroad Injury of the Right Foot, Syme's Operation.

A boy, five years of age, had empyema of the right chest, which had opened externally, spontaneously. Dr. Bogue enlarged the opening and inserted a drainage tube, previously having passed a thread through the rubber tube, to prevent its slipping into the thoracic cavity.

A fracture of the right humerus, due to a fall, was treated by extension, weight, and pulley.

There was no interference in the case of a German, who had a dislocation of the right shoulder of four months' duration. Some details were given by Dr. Freer, of a list of accidents that had occurred in twenty cases, where attempts had been made to reduce this kind of injury. In India, a dislocation of this sort had been reduced after two years' displacement.

A young Swede had his foot mashed by a railroad accident. Dr. Freer performed Syme's operation, using Esmarch's bandage, and ether as an anesthetic.

In regard to Esmarch's bandage—a practical and recent application of an old discovery—Dr. Freer answered some objections to it, made by Langenbeck, as, for instance, the danger from septicæmia, where the decomposed fluids of a limb might be sent into the system by bandaging. In such case, there would be no need of bandaging below the seat of infection—begin higher up. To the second objection, that the bandage endangered the well-being of the flaps, conducing to sloughing, it was said that there would be sloughing in a certain per cent. of cases if no bandage were used. There has been no case of sloughing of flaps in the Cook County Hospital which could be attributed to the use of Esmarch's bloodless method. If there were ecchymoses along the limb (though he had seen none at this hospital), it was probably due to applying the bandage too tightly.

July 21. Medical Clinic. By Dr. LYMAN.

Scarlatina Hemorrhagica.

The patient, a brass-finisher, a Canadian, twenty-two years of age, thought this was his second attack of scarlet fever, and that the eruption came out on the eighth day of his sickness. The eruption was coextensive with the entire body—confluent on the face only; the limbs were lowered in temperature, and covered with large purpuric patches; the color did not disappear upon pressure. The tongue, buccal and faucial membranes were intensely red; the edge of the gum, next the teeth, was marked by a line of apparent hemorrhagic exudation.

Treatment: Potassium chlorate, compound tincture of cinchona; brandy and water; and the following: R. Potassæ

acetatis, oz. ss; tr. digitalis, f. oz. j; aquæ, f. oz. iij. M. Sig. Take one teaspoonful four times a day.

Diabetes.

This patient, an Irish laborer, thirty-six years of age, was receiving every six hours teaspoonful doses of turpentine emulsion, to which were added eight minims tr. opii. The citrate of iron and quinine was given three times a day. He is now troubled by a diarrhœa; tongue red and much furrowed. His urine is of the specific gravity of 1041, and he voids ten and a half quarts daily. The desire to drink is strong and constantly present. In 1866 he had an attack of sunstroke.

July 28. Dr. H. M. LYMAN.

Scorbutus.

At present there are four cases of land-scurvy under treatment. One patient is a Norwegian, thirty-five years of age, and a cabinet-maker. The other patients are boys, two of whom are eight years, the third nine years of age, and inmates of a school in which they state they have seldom had potatoes or onions to eat. One of the boys has lost two teeth. His gums are blue, very spongy, and crowd between the teeth. The face is a little swollen.

The Norwegian had been boarding himself, and living in a damp, dark and underground apartment, beneath a barn. He says he has had no vegetables in the last three years, and lived on salt pork the last two years. His weakness is extreme. He is almost bloodless, and very emaciated; legs painful, stiff and swollen, and covered with petechiæ and purpuric patches. He has lately lost four teeth; his breath is very fœtid; gums tumid and tender. His bowels have moved only twice in the past month. Dr. Lyman adverted to the proverb among sailors, that the sight of land would kill scorbutic sailors, and explained it as not being due to that cause, but to the over-exertion and excitement of the sailor *in trying to get up on deck* to see land, when his anæmic and asthenic condition ought to have forbidden his getting up at all; there would be danger of fatal syncope from such imprudence. Ordered nutritious and vegetable diet, acid drinks, and tr. ferri muriatis; also a permanganate of potassa gargle.

A German gardener, thirty-five years of age, had an attack of remittent fever eight years ago; more recently, an attack of intermittent fever. His present condition is that of malarial cachexia and anæmia. There was also the well-known ague cake; the spleen upon percussion and palpation was found to be a hardened mass, with a distinct indurated edge.

Ordered: R. Ferri et quiniæ citratis, gr. iij; acid arseniosi, strychniæ sulphatis, *aa* gr. $\frac{1}{30}$. M. Ft. fil. No. 1. Sig. Take one such pill three times a day, after meals. Locally, apply over the region of the spleen an ointment containing the biniodide of

mercury. It will be necessary to continue the above treatment not less than two months.

Valvular disease of the heart in an Irish woman, seventy-nine years of age. If there is dilatation and thinness of the cardiac walls, with feeble action, you may exhibit tincture of digitalis; doses of twenty drops. If there is hypertrophy, give veratrum viride up to toleration; dose of three or four minims; and you can give more of it by combining with it the tr. opii, which will be an antidote to the depressing effects of veratrum viride.

Rush Medical College. Saturday, July 18. Surgical Clinic, by Dr. GUNN.

Abscess of the Left Side.

Dr. Gunn brought before the class a man forty-five years of age, who had had pleuro-pneumonia with effusion upwards of two years, together with pneumo-thorax. Six weeks after the attack, two openings in the left chest formed spontaneously, and had continued to discharge pus for more than a year. The left half of the chest is the smaller, by more than two inches. These closed up, but again re-opened. The patient desired to know whether there was any more fluid in the chest, and whether there would be a third opening and discharge? He was informed that there was probably no fluid remaining.

Dr. Gunn remarked that he believed he was a pioneer of what has of late years become the practice, namely, early tapping in effusions of the chest. It is the duty of the physician to tap patients with effusion at the end of three weeks, if even it be only serum, for the possible danger to the lung by compression is very great. He did not think the danger from air in the chest was very great, and cited several cases in support of his view.

Where the aspirator is not at hand, the following is the mode of tapping: Place the patient over the edge of the bed, and with a thumb lancet make a vertical incision, one inch long, directly over the seventh rib; draw up the skin, and in the sixth intercostal space, near the seventh rib, puncture the chest wall. A valvular incision will have thus been made, into which a pledget of lint may be inserted, and secured by adhesive plaster; the skin may slide over it. The next day it may be withdrawn, to draw off more fluid. After a while the discharge will cease, and the fistulous tract close up.

Mercy Hospital. July 20.

Your reporter desires to acknowledge the courtesies received from Dr. Haines, the House Physician.

A patient who had had a bronchitis of long standing, with emphysema, and been subjected to many forms of treatment without

cure, was given, tentatively, the potassium iodide with immediate relief and benefit. Upon substituting hypodermic injections of the biniodide of mercury (gr. $\frac{1}{12}$), he relapsed, and had periosteal trouble. The iodide of potassium was resumed, forty grains daily, and to the nodes an application was ordered of: R. Acidi carbolici, f. dr. j; tr. iodinii, f. dr. vij. M.

Acute Articular Rheumatism.

The usual treatment is to render the urine alkaline within forty-eight hours after admission, if possible. This is done by the exhibition of half-drachm doses of the acetate or citrate of potassa, with suitable doses of wine of colchicum. Sometimes the nitrate of potassa is used. Dover's powder, to quiet pain. No topical applications. After two days, this treatment is suspended, and three-minim doses, four times a day, of the strong nitro-muriatic acid, with the $\frac{1}{24}$ grain strychnia sulphate. The tr. ferri muriat is sometimes used.

Rupia.

A young man was under treatment, receiving of the potassium iodide eight grains, with two grains of the muriate of ammonia; the dose repeated three times daily; topically, a lotion of carbolic acid. The eruption in this patient is due to a venereal ulcer contracted a year ago, has widely spread over all parts of the body, and is a typical and fine illustration of rupia.

In the treatment of syphilis, care is taken to bring the condition of the patient up to a good standard by nutritious diet, and by the syrup iodide of iron with bark, before the usual specific treatment is ordered.

A young girl of sixteen had an attack of scarlatina in her childhood, which, among other evils, produced deafness. She had never menstruated, but an oval globular tumor above the pubis had been gradually forming and enlarging. Upon dilating and incising the cervix uteri, the contents of this tumor were evacuated, and consisted of retained menstrual fluid and detritus. A few weeks later, imprudent exposure and over-exercise brought on an attack of cellulitis and peritonitis, with formation of abscess in the left inguinal region. The patient's condition was one of great debility, pain upon moving, or on being touched over the region of the abscess. After waiting for some return of strength, the fluid was drawn off by the aspirator, its puncture being made in the left iliac region, on a line with the centre of Poupart's ligament, and four inches above the ligament.

Subsequently, a spontaneous opening formed two inches above the point of the first puncture, possibly because the abscess may have been divided into two cysts or compartments, into one of which the needle of the aspirator did not penetrate.

Excessive Tympanites.

A patient convalescing from typhoid fever, exhibited a most wonderful gaseous distention of the abdomen. To relieve this, bismuth, turpentine and various other medicines and clysters of many sorts were ordered, but without benefit. Upon the physiological grounds of its well-known action upon the unstriped muscular fibres, the fluid extract of ergot, twenty minims four times a day, was given, with speedy and permanent effect upon the intestine; the tympanites soon disappeared.

Delirium Tremens.

Dr. Howell gives the fluid extract of cannabis indica where the patient is in a very nervous and tremulous condition (where he can neither sit nor stand), twenty or thirty minims in one dose at night, usually without the potassium bromide. The hydrate of chloral has been observed to cause distress to the eyes, and, in one case, a conjunctivitis has been thought to have followed the use of chloral.

Formula to disguise the taste of cod-liver oil: Glycerine, two parts; brandy, one part, and cod-liver oil, one part. Mix, and add enough of essence of wintergreen to flavor.

July 31. Surgical Clinic, by Dr. FREER.

Reunited Fracture of the Left Leg.

This man broke his leg six months ago. The line of separation is at the junction of the upper and middle third of the limb; it is only partially united, probably because the surfaces of the ends of the fragments are covered with fibrous, ligamentous structure, thus preventing the formation of bone structure.

The treatment for such a non-union will vary with the interval after time of accident. The moderate means, such as the movement of the ends upon each other, blistering, or walking on the limb, should first be tried. Too long a time has elapsed to allow any expectations of such means being of benefit in this case.

I shall employ a more radical method, one devised and introduced in 1850 by the late Prof. Brainard—the boring of the bone by a drill. It will succeed in all proper cases for that kind of treatment. No good results are to be expected when the drill is used in patients very cachectic, anæmic, who have cancer, or are in gestation or lactation. Its design is to denude the surface of the bone, excite moderate inflammation and *reproduction* of bone; the drill acts by displacement. Very little bone dust or chips are formed. The seton and the ivory peg do not cause reproduction of bone, though they set up an inflammation.

In his experiments upon the lower animals, Dr. Brainard found that the ivory peg, driven into the seat of fracture, would cause necrosis, or at least destruction of bone.

The integument should be moved above or below the point where you intend to insert the drill, in order that when the skin falls to its natural position, it may cover over the points you have drilled in the bone. Pass the drill through the superficial to the deeper fragments of bone; then, without entirely withdrawing the drill, move it to one or the other side, drawing the skin with it. Each fragment, the distal and proximal, may in this way be drilled in three or four places.

It may be necessary to repeat this operation, at intervals of a few weeks, three or four times.

Dr. Freer made three openings in each fragment, the drill going through the entire diameter of the bone. No anæsthesia was needed. The leg will be put at once into a plaster of Paris splint.

Editors' Book Table.

NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis. Designed as a Manual for Students and Practitioners. With engravings and cases. By W. H. VAN BUREN, A.M., M.D., Professor of the Principles of Surgery, etc., in Bellevue Hospital Medical College, etc., etc., and E. L. KEYES, A.M., M.D., Professor of Dermatology in Bellevue Hospital Medical College, etc., etc., etc. New York: D. Appleton & Co., 549 and 551 Broadway. 1874.

It is with no small degree of professional and national pride, that we receive this work of the distinguished Professor of Bellevue as another illustration of the rapid advances now being made in medical literature on this side of the ocean—advances which are rapidly diminishing our dependence upon foreign sources of instruction in the more purely scientific departments of medicine.

The work is divided into two sections, the first of which—four hundred and seventy-two pages—is devoted to the consideration of diseases of the genito-urinary organs, including those of the penis, urethra, prostate gland, bladder, ureters, kidneys, testicles, scrotum, spermatic cord and vesicular seminales, with the operative procedures necessary for their relief, and full descriptions of the instruments required. The second section of two hundred pages comprises the various manifestations of syphilis and chancroid. In the first section of the work, the chapter on "urethral

and sexual hygiene" deserves to be written in letters of gold containing, in the short space of two pages, lessons in moral, mental and somatic hygiene, which, if faithfully applied, would soon rid the world of a large class of diseases.

The treatise on prostatic disease is unusually full, and constitutes the most valuable contribution to this department of pathology in the English language. The description of that rare form of disease, tubercular kidney, has evidently been written from practical observation of the disease, and to one familiar with its morbid anatomy is singularly accurate.

On page 169, the "summary of treatment of stricture" is more comprehensive than many large volumes.

The author declines, very wisely, the discussion of the vexed question of the unity or duality of the syphilitic poison, upon which so much bad logic has been expended by medical writers. He, however, practically takes position with the unicists, inasmuch as he describes most carefully, syphilis in its various forms and modes of manifestation, and equally carefully another disease which is not syphilis but "chancroid," lacking some of the essential characteristics of syphilis. This question of unity or duality of syphilis has always appeared to us as a parallel to that concerning "true" and "spurious" vaccine. That is to say, there is a disease whose specificity depends upon the presence of certain characteristic symptoms and appearances. These absent, the essentials of the disease no longer existing, the disease itself is not, but instead, we have something essentially, specifically distinct, which may be designated as may seem best, but should be correlated with the first only antithetically.

On page 555, we are glad to see that Dr. Van Buren speaks unequivocally upon this head. In speaking of that most illogical, irrational mode of treatment, syphilization, he says, "its premises are scientifically inexact, for *chancroid* is not syphilis any more than is nettlerash the itch."

The remarks in the latter part of the volume upon syphilis of the nervous system, shed light upon much that was obscure in this peculiar department of pathology. Taken altogether, the work must take rank amongst the classics of professional literature.

The mechanical portion of the work cannot be commended more highly than by saying that it is issued by the great house of D. Appleton & Co. H.

Observations on the Pathology and Treatment of Cholera,—The Result of Forty Years' Experience. By JOHN MURRAY, M.D., Inspector-General of Hospitals, late of Bengal. New York: G. P. Putnam's Sons. 1874.

A record of the accumulated experience of forty years in the observation and treatment of any disease could scarcely fail to

contain much valuable information, and hence it is to be regretted that the author has condensed his subject so severely that much valuable matter must necessarily have escaped.

In fifty duodecimo pages it is scarcely possible to give more than the barest epitome of the observations which the most careless observer must have made during forty years in a locality so prolific in examples of any disease as India of cholera. It is rare that the reviewer is called upon to complain of the brevity of an author. In this case, one of the advantages may be, that every one will read it, as every one should, and every one who reads will have but one comment, like that upon the old lady's pudding, "very good! what there is of it." H.

A Universal Formulary. Containing the Methods of Preparing and Administering Officinal and other Remedies; the whole adapted to Physicians and Pharmacists. By R. EGLESFELD GRIFFITH, M.D. Third edition, carefully revised and much enlarged by JOHN MAISCH, Phar. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. With illustrations. Philadelphia: Henry C. Lea. 1874.

Griffith's Medical Formulary is so well known to the profession as to require but a passing notice. A work more useful in its especial department cannot be found, the formulæ being derived from the highest authorities, and duly accredited. There are occasional defects to be found, as nothing is perfect, but the formulæ on page 557, credited to Magendie, we think would scarcely be deemed safe by those accustomed to the use of strychnia, *i. e.*, one-twelfth to one-sixth of a grain morning and evening. Nor would the two following, which permit the use of this drug in doses of one-tenth to one-sixth of a grain, be altogether free from danger. Whereas the formulæ of Giubourt and Brera, for one-sixteenth and one-twentieth (respectively) of nitrate of silver, can scarcely be considered sufficiently active to possess any efficiency. The formula from Bouchardat, (atropia 15 grs., alcohol 10 fl. drachms, dose one to three drops,) is dangerous, one to three drops of the tincture containing one-fortieth to one-thirteenth (nearly) of a grain of the alkaloid; the minimum of these should be the maximum. These are incidental defects, and do not detract from the general merits of the book, which, in the main, is beyond criticism. The editorial excellence of the work is guaranteed by the name of Jno. M. Maisch, and its mechanical and typographical perfection by the imprimatur of Henry C. Lea. H.

BOOKS RECEIVED.

Nomenclature of Disease. Prepared for the use of the Medical Officers of the United States Marine Hospital Service, by the Supervising Surgeon, JNO. M. WOODWORTH, M.D.

Essays on Conservative Medicine and Kindred Topics. By AUSTIN FLINT, M.D., Prof. of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, N. Y.

PAMPHLETS RECEIVED.

A New Method of Treating Malignant Tumors by Electrolyzing the Base. By GEORGE BEARD, M.D. New York. 1874.

Atmospheric Electricity and Ozone: Their Relations to Health and Disease. By GEORGE M. BEARD, M.D.

Catalogue and Announcement of the Medical Department of the University of Pennsylvania for the 109th Session, 1874-75.

Eighth Annual Announcement of the Chicago College of Pharmacy.

On the Value of High Powers in the Diagnosis of Blood Stains. By JOSEPH G. RICHARDSON, M.D., Lecturer on Pathological Anatomy in the University of Pennsylvania, and Microscopist to the Pennsylvania Hospital.

The Vanderbilt University Department of Medicine and Surgery.

Transactions of the Eighth Annual Meeting of the Medical Association of the State of Missouri, held at Sedalia, April 21, 1874.

Report on the Progress of Surgery. By J. W. TRADER, M.D., Sedalia, Mo.

Direct Local Medication in the Treatment of Chronic-Catarrhal Inflammation of the Nasal and Pharingo-Nasal Cavities. By THOMAS F. RUMBOLD, M.D., St. Louis.

JOURNALS RECEIVED.

L'Anatomie et de la Physiologie, Journal de M. Charles Robin, Paris—Juilliet et Aout.
The Atlanta Medical and Surgical Journal—August.
" American Medical Weekly, Louisville—Nos. 1, 2, and 3.
" American Journal of Syphilography and Dermatology—July.
" Archives of Ophthalmology and Otology—Vol. IV, No. 1.
" Braithwaite's Retrospect—July, 1874.
" Boston Medical and Surgical Journal—August 1.
" Buffalo Medical and Surgical Journal—June.
" Canada Lancet—August 1.
" Cincinnati Lancet and Observer—August.
" Clinic—July 18, 25.
" Canada Medical and Surgical Journal—July.
" Chicago Journal of Nervous and Mental Disease—July, 1874.
" Druggists' Circular—August 1.
" Detroit Review of Medicine—August.
" Dental Cosmos—August.
" Kansas City Medical Journal—July.

The London Lancet—July.
" Medical and Surgical Reporter—July 18, 25, August 1, 8.
" Medical Record, New York—July 15, August 1.
" Medical Science, Half-Yearly Compendium of, Philadelphia—July, 1874.
" Medical Times, Philadelphia—July 11, 18, 25, Aug. 1, 8.
" Medical Examiner, July 15, August 7.
" Medical Press and Circular, London—July.
" Medical and Surgical Review, (Australasian)—May.
" Medical News and Library—August, 1874.
" Medical News and Library, Supplement.
" Missouri Clinical Record—August.
" New Remedies. A Quarterly Retrospect of Therapeutics, Pharmacy, etc.—July.
" Nashville Journal of Medicine and Surgery—July and August.
" New York Medical Journal—August, 1874.
" Psychological and Medico-Legal Journal, New York—July.
" Pacific Medical and Surgical Journal—July.
" Peninsular Journal of Medicine—August.
" Practitioner, London—July.
" Pharmacist—August.
" Richmond and Louisville Medical and Surgical Journal—July.
" Southern Medical Record—July.
" St. Louis Medical and Surgical Journal—August.
" Technologist—July.
" Virginia Medical Monthly—August, 1874.

Editorial.

Some cynic has said "the world has been trying for sixty centuries to pluck the mote from its brother's eye, and never yet detected the beam in its own." Hence, while the suggestion conveyed in the aphorism is by no means novel, its practical application might prove a refreshing variety to the monotony of life in these dog-days. We shall propose very gravely, then, that we of the medical profession begin to extract the beam from our own eyes as indicated to us by the general public, on several recent occasions, through its exponent, the secular press.

Twice, of late, have charges been made against our profession, seriously compromising its honor and trustworthiness, if true. That they might have been made once, vaguely and generally, without foundation and unjustly, is probable; but when they are reiterated distinctly and specifically without contradiction, they thereby acquire a degree of importance which demands our attention.

The medical profession of the city of Chicago has been charged with collusion with druggists to rob the people—their patients—whose lives have been placed confidentially in their hands.

The general charge has been specified as follows:

1. In advertising certain pharmacists by circulating their business cards in the form of prescription papers, supplied at the expense of the pharmacist, which expenditure must be compensated for by the addition of a percentage to the reasonable profit received by the pharmacist upon his prescription trade.

2. In occupying offices, leased from pharmacists, without, or with a nominal, rental, the sums thus disbursed for such rents being "made up" in the manner already indicated, *i. e.*, by an additional charge to patients for medicines.

3. In receiving from pharmacists an actual percentage, in money, upon the amount charged for every prescription written by the physician and prepared by the pharmacist.

Are these charges true? If so, our assertion that they seriously compromise the honor and dignity of our profession is just; for their truth demonstrates the fact that certain members of our profession have become mere stipendiaries of certain pharmacists—"drummers" for the drug trade, and not even first-class drummers, salaried employees, but, like the rank and file of the numerous army of "commercial travelers," "working on commission."

We have made diligent inquiry to ascertain if any evidence of such collusion as is charged existed, and must say, "*Si non e vero e ben trovato.*"

That the practices specified are common, is well known. They have been sanctioned by custom, and adopted by a large number of physicians, upon whom no suspicion of dishonor could for a moment rest. But that they are applied dishonestly by some, there is good reason to believe. That these usages or customs, innocent, perhaps, in their inception, are susceptible of outrageous abuse, must be clear to any honest mind; and while there are many who still adhere to them in perfect integrity and good faith, there are others who use them corruptly and dishonestly, to the pecuniary loss of their patients and the degradation of their profession.

The time has come for a reform, long looked for by all tena-

cious of professional honor, but now made necessary by public clamor. It can be accomplished, and at once, by a total abandonment of the practices upon which these charges of collusion are based. Let honorable members of the profession cease to write prescriptions upon the business cards of pharmacists. Let them, as soon as possible, vacate their offices adjacent to pharmacies. Let them abandon the use of private formulæ, cryptograms, known only to the initiated—and thus, like Cæsar's wife, be above suspicion.

To those who have already sunk so low as to have received commissions on prescriptions, if it is possible to reform that which must be already essentially deformed, we say, abandon either the profession or the dishonest practices which disgrace it.

The Society of Physicians and Surgeons, at its meeting August 11th, passed a series of resolutions condemning in the strongest terms the practices indicated above. Moreover, the resolutions were passed unanimously, and although there were but eighteen members present, these eighteen have placed themselves on record in their support. But this alone is not sufficient. The resolutions must be enforced. Let the Society look to this, and, having accomplished it, its whole duty to the profession and the public will have been fulfilled.

It remains now for the College of Pharmacy to consider their side of this question. If they can be induced—and we are assured by competent authority that they can—to pass, and enforce, resolutions comprehending the same objects, it will then be easy to crush out the evil between the two co-operating forces. H.

"Abortion Not a Crime."

On the thirty-first day of July the notorious "Dr." Earll was convicted before the Criminal Court of Cook County of the murder of Rosetta Jackson, by abortion—the murder of the unborn child was entirely overlooked—and was sentenced by the jury to confinement for one year in the Penitentiary. The astonishment of all, and the indignation of many, who have heard or read the evidence in this case, at the utter disproportion of the punishment to the offense, will cease when the real reason shall have been ascertained. Here it is: Four of the jurors, convinced by the evidence that Earll had committed the abortion, were unwilling

to convict, because they did not regard the act as criminal, considering that any one who did not desire offspring had a perfect right to destroy them in utero.

Here we have, in brief, the necessary result of the false teaching to which society has been subjected, both in physiology and morality—false teachings which have become a part of the moral character of the greater portion of society, under the sanction of mischievous laws, their inevitable outgrowth.

When the Civil Code shall have been reconstructed upon the basis of true physiology; when society shall have been taught that no arbitrary limit can be assigned as the initial point of a human life; when men, and, more especially, women, shall be convinced that a fœtus in utero, from its conception to its birth, is, potentially, as much a human being as the mother who bears it in her womb; when the truth which has been enunciated by medical jurists for a generation, that the destruction of the fœtus in utero, at whatever period of its existence, is murder, shall have been thoroughly understood; then will jurymen be made to know that the destruction of unborn children is not simply a matter of conscience, in which no one is concerned except the perpetrators, but that abortion is murder, planned by the woman, aided and abetted usually by some man, and perpetrated by some hired assassin dubbed "Dr.;" it may be in a Halsted street den by an "Earll," with his oil of tansy and his home-made hook; it may be by some one much better known, who earns his fifty dollars of blood-money in his office on a fashionable avenue, with an instrument much safer, an elastic bougie. We are told that there is no remedy for the evil; that it is simply an outgrowth of the innate depravity of human nature; that if one will not, another will, do these deeds of darkness and of blood; that women will produce abortion upon their own persons.

Moreover, we hear much of justifiable abortion to save the life of a pregnant woman; and we read in a cotemporary journal of recent date, of one eminent physician who performed five of these "justifiable" abortions which did not save the lives of the pregnant women, but destroyed them in every case; and we mentally thank God that we have not that load on our conscience, which all the honors of professional eminence can never counterbalance. If the justification of abortion rests upon the conscience and the

judgment of any one man, why not upon that of any other man? What right has one physician to decide a question which another may not assume? If abortion is justifiable to save the life of a woman, why is it not equally so to save her reputation, which to many is dearer than life, whose loss has driven many to destroy life by suicide?

"*Falsus in uno, falsus in omnibus*"—that which is wrong, is so essentially, and by no sophistry, under no circumstances, can be made right.

There is a remedy for this great evil, a mode of preventing this terrible massacre of the innocents which is already making itself felt in essential ethnological modifications. Let physicians cease to throw the mantle of professional confidence around applications for the production of abortions. Let these be regarded, as they undoubtedly are, as suggestions to the commission of felony, and let them be treated as would be a suggestion to commit robbery, forgery, or perjury. Let information, under oath, be laid before the proper authorities that the crime of abortion is meditated, and we will see it rapidly diminish, and perhaps cease altogether.

Chicago Medico-Historical Society.

We have been favored by a professional friend with a glance at the proof sheet of what purports to be a corrected list of reputable and honorable members of the medical profession in Chicago, to be published under the sanction of this Medico-Historical Society. Its perusal suggested mingled feelings of amusement, indignation and regret: amusement at the utter incongruity of the resolution which precedes the list, and the list which follows it,—a resolution which deprecates abuses, practiced notoriously by many whose names are appended—indignation that this should go forth to the world as a corrected list of the honorable members of our profession in this city—and regret that gentlemen of intelligence, of integrity, of unblemished professional honor, should allow themselves to be used for such base purposes. We predicted in our June No. difficulties which must grow out of an institution so carelessly organized, but are ourselves surprised at the rapidity of their realization, and not less at their magnitude.

Gentlemen, there is one mode of escape from the perplexities

which surround you. Dissolve, and reorganize, before that list shall have gone forth to the world as a fair exponent of the character and practices of your profession in this city. Is there no moral force in the profession? Shall it be said that two individuals dared to do what seventy-five dare not,—omit from their list men notoriously unprofessional, to use no stronger language?

Dissolve, before you demoralize the whole profession! H.

Consistency (?).

To receive into your private office for medical instruction pupils to whom you refuse admission into your medical society. For example, compare the resolutions of the Chicago Society of Physicians and Surgeons, passed by a large majority at its meeting, April 13, 1874, and the subsequent course of certain gentlemen who voted for that same resolution, and for further particulars "see small *bills*." Gentlemen, remember the old Scotch proverb: "Betwixt twa stools the doup fa's doun,"—"Who serves two masters, must lie to one of them."

Publishers' Notice.

The Editors have crowded us with matter for the present No. to such an extent, that we have been compelled to print much of it "solid" instead of "leaded" as usual, for which we ask the indulgence of those of our readers who are compelled to wear spectacles. W. B. K., C. & Co.

Errata.

On page 417, July No. of the JOURNAL, in the foot-note, the word "depuration" should be *separation*.

On page 420, in the 18th line from the bottom, the word "labial" should be *lateral*.

Cholera.

OFFICE OF THE SUPERVISING SURGEON,
U. S. MARINE-HOSPITAL SERVICE,
Treasury Department, August, 1874.

DOCTOR:

The Supervising Surgeon of the United States Marine-Hospital Service having been designated by joint resolution of the Forty-third Congress, approved March 25, 1874, in connection with a medical officer of the Army, "to confer

with the health authorities and resident physicians of such towns [as were visited by the Cholera Epidemic of 1873,] and to collect, so far as possible, all facts of importance with regard to such epidemic,"—for the purpose of making a report of the same to the President of the United States, to be submitted to Congress,—I have the honor respectfully to solicit a detail of the facts which came under your observation concerning the propagation and spread of the disease during that year.

The following memorandum embraces, substantially, the points upon which information is desired:

1. Name, sex, and age of patient.
2. Residence of patient—town, street, and number.
3. Day and hour of attack.
4. Premonitory symptoms, their nature and duration.
5. Progress of the disease: *a*. Day and hour of beginning of rice-water discharges; *b*. Day and hour of beginning of cramps; *c*. Day and hour of beginning of collapse; *d*. Period and extent of suspension of renal function; *e*. Nature of treatment and result; *f*. Day and hour when convalescence began; *g*. Day and hour when death occurred; *h*. Post-mortem appearances in detail.
6. Story of house occupied, and height of floor from ground.
7. Sanitary condition of house and enclosure: *i*. As to cleanliness of rooms—clean, neglected, filthy; *k*. As to ventilation and light—good, defective, bad; *l*. As to drainage of house—good, obstructed, absent; *m*. As to drainage of ground—good, obstructed, absent; *n*. As to location and condition of privies or water-closets, connection with street-sewer, mode of flushing, of ventilation of soil-pipe, disinfection, etc.; *o*. As to surface water, garbage, or filth about the premises.
8. Source and quality of water supply. If from a well or cistern, proximity of privy, sewer, or drain thereto, and chance of pollution.
9. General topography of localities in a given town where cholera prevailed.
10. Character of soil.
11. Character of drainage.
12. Occupation and habits of patient, and whether a resident of house where attacked for two weeks or over.
13. The facts in any case where the patient was attacked within two weeks after removing from an infected district into one previously free from the disease, specifying the respective districts and character of exposure.
14. The sequence of cases where more than one was attended, with their relations to each other, and to the cases of other physicians, with names of such physicians.
15. The means and agents used by the physician, by the family, and by the municipal authorities, to prevent the spread of the disease, and the result of such preventive measures.
16. Public measures taken to prevent the introduction of the disease into your community, with the result.
17. Temperature, rain-fall, and prevailing winds, for so long a period as practicable prior to appearance of cholera, and also during its continuance.
18. Dates of first and last cases of cholera in the locality in 1873—total number of cases, and mortality.
19. Connection, if any, between first cases in 1873, and the localities of the disease in the immediately preceding epidemic.
20. Names of cities, towns and villages known to you where cholera occurred during 1873, with any facts relating to the introduction of the disease to such, and the address of some respectable practitioner residing in each of the places named.

Contributions to this investigation, by answers to the foregoing—or to so much

thereof as is practicable—will be fully acknowledged in the official report, the value of which, it is hardly necessary to say, will largely depend upon the co-operation of the profession thus sought.

Copies of any reports or papers which you may have already prepared on the subject, or of those prepared by others and annotated or emended by yourself, will also be of service, and may be forwarded, to be returned if desired.

I am, Doctor, very respectfully,

JNO. M. WOODWORTH,
Supervising Surgeon.

Chicago Mortality Report for July, 1874.

MORTALITY IN MONTH OF JULY, 1874.

Accident, by burns	3	Cholera infantum	594
" by being crushed	1	" morbus	11
" by drowning	16	Consumption	40
" by explosion	1	Convulsions	180
" by fall	3	Croup	3
" in mill	1	Colic, lead	1
" fractured skull	1	Cyanosis	1
" thrown from wagon	1	Debility, general	9
" run over by wagon	1	Delirium tremens	3
" run over by bus	1	Diabetes	1
" by scalding	1	Diarrhœa	67
" by suffocation	1	" chronic	4
" by shooting	3	Diphtheria	4
" by railroad	2	Dropsy, general	6
Abscess, hepatic	1	" ovarian	1
Addison's disease	1	Dysentery	10
Anæmia	1	" chronic	2
Aneurism of aorta	1	Dyspepsia	2
Angina pectoris	1	Endo carditis	1
Apoplexy	7	Enteritis	25
Ascites	1	Entero colitis	33
Atelectasis pulmonum	1	Endo metritis	1
Bladder, hemorrhage of	1	Erysipelas	4
Bowels, hemorrhage of	1	Fever, congestive	2
" ulceration of	1	" intermittent	3
" strangulation of	1	" puerperal	7
Brain, congestion of	12	" scarlet	12
" inflammation of	12	" typhoid	10
" softening of	1	Gangrene	1
Bronchitis	4	Gastritis	5
" capillary	2	Gastro enteritis	16
Caries	1	Hæmetemesis	1
Cancer	3	Hemorrhage	2
" of breast	4	Heart, disease of	5
" of neck	1	" dropsy of	2
" of liver	1	" fatty degeneration of	1
" of stomach	5	" valvular disease of	3
" of uterus	2	Hepatitis	2
Catalepsy	1	Hypertrophy	2

Hydrocephalus	22
Inanition	34
Intemperance	4
Influenza	1
Intussusception	1
Icterus	1
Jaundice	1
Kidneys, disease of	2
" fatty degeneration of	1
Liver, cirrhosis of	1
" fatty degeneration of	2
Lungs, congestion of	4
Malformation	1
Manslaughter	2
Menstrual suffusion	1
Metro peritonitis	1
Measles	4
Meningitis	19
" cerebro-spinal	8
" tubercular	4
Myelitis	1
Necrosis	1
Old age	11
Paralysis	1
Perimetritis	3
Peritonitis	3
" puerperal	1
Perityphlitis	1
Pneumonia	17
Pleurisy	2
Pyæmia	2
Rheumatism	2
Suicide, by poison	1
" by shooting	1
Scrofula	3
Scurvy	1
Small-Pox	7
Spine, disease of	1
Stomach, hemorrhage of	1
Stomatitis	1
Sun stroke	7
Tabes mesenterica	23
Teething	4
" and complications	12
Tetanus	2
Trismus	2
Tumor	2
" of abdomen	2
Ulcers, gangrenous	1
" and stricture of rectum	1
Uræmia	1
Uræmic poisoning	1
Uterus, inflammation of	2
Vitality deficient	3
Whooping cough	17
Total	1454

Premature births	12
Still births	57
Total	69

COMPARISON.

Deaths in month of July, 1874	1454
" " June, 1874	542
Increase	912
Deaths in month of July, 1873	1504
Decrease	50

AGES.

Under one year	894
One year to two	222
Two years to three	39
Three " " four	10
Four " " five	7
Five " " ten	19
Ten " " twenty	43
Twenty " " thirty	43
Thirty " " forty	46
Forty years to fifty	51
Fifty " " sixty	33
Sixty " " seventy	32
Seventy " " eighty	11
Eighty " " ninety	4
Ninety " " one hundred	--
Total	1454

Colored	5
White	1449
Total	1454

Males	765
Females	689
Total	1454

NATIONALITIES.

Belgium	1	New Foundland	1
Bohemia	9	Norway	11
Canada	7	Poland	2
Native—Chicago	224	Prince Edward Island	1
Foreign, "	896	Shetland Isles	1
United States, other parts	123	Scotland	4
Denmark	2	Sweden	8
England	15	Switzerland	2
Germany	80	Unknown	5
Ireland	61		
Italy	1	Total	1454

MORTALITY BY WARDS, JULY, 1874.

Wards.	No. Deaths.	Pop. in 1872.			Percentage.
1	1	398	one death in		....
2	6	2,174	"	"	....
3	27	19,157	"	"	709
4	16	16,832	"	"	1,652
5	32	18,564	"	"	580
6	132	31,371	"	"	207
7	185	27,644	"	"	149
8	138	30,253	"	"	219
9	110	30,032	"	"	273
10	27	16,624	"	"	614
11	29	18,340	"	"	632
12	45	20,876	"	"	464
13	39	14,636	"	"	375
14	41	15,892	"	"	388
15	234	40,047	"	"	171
16	94	19,099	"	"	203
17	68	17,513	"	"	258
18	82	19,977	"	"	243
19	15	2,944	"	"	....
20	22	5,023	"	"	....
	1,343	Ratio of deaths to population in 1872, one death in 246.			

No. of deaths in Wards	1,343	Manslaughter	2
Accidents	36	Protestant Orphan Asylum	2
Bridewell	2	Small Pox Hospital	2
County Hospital	7	St. Joseph's "	6
County Jail	1	St. Luke's "	5
Foundlings' Home	36	Suicide	2
Hospital Alexian Brothers	5		
Hospital for Children	1	Total	1,454
Mercy Hospital	4		

CASES.	Day of Disease on which observation began	Pulse, Temperature Respiration.	1st Day.		2d Day.		3d Day.		4th Day.		5th Day.		6th
			M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	
1	7th	P.	86	96	88	84	-----	112	96	-----	92	100	
		T.	103	104.5	103	104	-----	106.4	105.8	-----	103	104.5	
		R.	19	27	18	18	-----	20	28	--- -	26	21	
2	6th	P.	90	103	92	104	96	108	96	100	104	116	1[illegible]
		T.	104	106.5	104.5	105.5	104	105	104.5	103.6	102	105	102
		R.	30	38	32	37	25	28	30	27	32	28	25
3	3d	P.	80	92	96	92	96	92	104	98	108	-----	84
		T.	100	103	101	105	103.5	102.5	102	103.5	102	-----	97
		R.	20	20	26	16	32	20	20	24	24	-----	20
4	5th	P.	94	104	96	96	80	96	96	84	70	88	80
		T.	103	105	104	105	103	105	104	103	100.5	102.5	102
		R.	26	30	28	24	24	25	20	24	20	23	18
5	16th	P.	108	120	100	108	120	128	102	120	104	120	94
		T.	105.5	105	105	105	104.5	106	104.5	105.5	102.5	105.4	101
		R.	32	36	36	40	40	36	40	32	32	38	32
6	11th	P.	100	-----	96	112	104	116	112	108	116	124	100
		T.	105.5	-----	103.4	105	103	105	104.5	104.6	104.5	106	102
		R.	30	-----	28	26	32	32	32	36	28	36	26
7	4th	P.	104	-----	108	120	104	124	112	120	112	104	108
		T.	103	-----	103.7	104	102	105	103	104	103.5	105	103
		R.	24	-----	21	34	28	26	24	28	24	28	32
8	9th	P.	104	100	93	116	112	104	100	104	92	108	92
		T.	104.7	105	103 8	107	105	107	104.5	104	102.5	107.2	105
		R.	24	26	24	28	24	22	24	28	36	28	32
9	14th	P.	-----	84	80	72	92	96	92	94	72	84	96
		T.	-----	106.2	104.5	105	104	105	106	106	103.5	104	104 5
		R.	-----	28	32	24	20	24	24	26	24	20	18
10	15th	P.	100	112	-----	-----	108	120	116	108	116	-----	90
		T.	101	105	-----	-----	104.5	105	104	104.5	103.5	-----	104
		R.	18	20	-----	-----	24	23	20	28	24	-----	24
11	3d	P.	80	82	80	96	84	92	90	96	92	108	90
		T.	102	103	103	104.5	102	105	102	105	103	105	102
		R.	18	20	17	20	20	24	16	[illegible]			

Day	24th Day.		25th Day.		26th Day.		27th Day.		28th Day.		Remarks.
E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	
90	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Œdema of left lower extremity. Recovered.
104	-----	-----	-----	-----	-----	-----	-----	----	-----	-----	
20	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
104											
106	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Uncomplicated. Recovered.
32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
104	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Parotitis and suppuration of both glands. Recovered.
105	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
18	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Uncomplicated. Recovered.
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
108											
103.4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Severe Bronchitis. Recovered.
44	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
112											
106	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Severe Bronchitis. Recovered.
40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
116											
105	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Uncomplicated. Recovered.
28	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
96	124	120	128	120	116	160	156	-----	-----	-----	Hemorrhage from bowels. Death.
106	104	104.3	101.5	105	103	106.5	101.5	-----	-----	-----	
30	30	28	36	28	32	40	52	-----	-----	-----	
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Uncomplicated. Recovered.
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
120											
104	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Uncomplicated. Recovered.
28	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
94											
105	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Uncomplicated. Recovered.
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	Deafness. Recovered.

ɜHT CASES OF REMITTENT FEVER.

:h Day.		7th Day.		8th Day.		9th Day.		10th Day.		11th Day.		12th Day.		13th Day.	
.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.
·5	74 99·3 18	100 103 28	116 ● 103.5 30	104 102 25	116 104 28	96 101.7 24	86 100.3 20	84 100.5 18	80 98.7 18	72 98.5 18	76 99.5 20	72 98.5 18	74 99.3 18	72 98.5 18	....
	76 100 20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	74 100 18	72 98.5 18	72 99 18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	90 100 20	84 99 18	76 98.5 18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXXI.—OCTOBER, 1874.—NO. 10.

Original Communications.

ARTICLE I.—*Typhoid Fever—Collation of 112 Cases.* By WILL. T. T. MONTGOMERY, M.D., Chicago.

I have endeavored, in the following paper, to present what has seemed to me to be points of most interest from a record of 112 cases of typhoid fever. These cases were treated during the months of September, October and November, 1872, in Cook County Hospital, in the service of Drs. Joseph P. Ross and Henry M. Lyman, attending physicians, and during my service as resident physician of that hospital. It is through the kindness of the attending physicians that I am enabled to present this report, and whatever of credit or merit attaches to the treatment of these cases belongs to these gentlemen.

I need not remind members of this Society who were practicing in the city in the fall of 1872, that there was an unusual prevalence of typhoid fever here at that time, but I think the number of cases admitted into the charity hospitals at that time was unusually large in proportion to the whole number of cases in the city, and the reasons are obvious.

First. While *epidemics* of typhoid are not common in Chicago, *cases* are not uncommon. Indeed, rarely a month passes that does not present a greater or less number.

Second. It is an established fact, that persons going from the country, or portions of it where typhoid fever is not endemic, into a place where it is endemic, are much more susceptible to the influence of the typhoid poison. In other words, the system becomes accommodated to the poison by being with it.

Third. A large number of the cases seeking admission into the charity hospitals are recent arrivals in the city.

Fourth. In the spring and summer of 1872 Chicago had an unprecedented ingathering of men from all parts of the country to engage in the great work of rebuilding the city.

I mention these as being to me the most prominent reasons why the proportion of cases in hospital was unusually large in the fall of 1872. It is not my purpose, in presenting this paper, to enter into a general discussion of the subject of typhoid fever, but to make a brief statement of the most marked symptoms, complications and sequelæ met with in these cases, notice the importance of each, and call attention to the treatment adopted. We will first give an epitome of these, and then take up each separately and dispose of it.

Symptoms. In the 112 cases, epistaxis occurred in 23; diarrhœa in 77; constipation in 10; rose spots in 50; blue spots in 2. In all of the cases particular attention was given to the temperature, pulse, and respirations.

Complications. Delirium occurred in 49; deafness in 11; softening of the cornea in 1; parotitis in 3; intestinal hemorrhage in 3; peritonitis in 2.

Sequelæ. Right hemiplegia, with aphasia, occurred in 1; œdema of left lower extremity in 3; died, 20.

We will next consider each of these separately.

Epistaxis. This, you will remember, occurred in 23 of 112 cases. In 20 of the 23, the epistaxis occurred in the first week, and in 3 in the third week of the disease. When it occurs in the first week, epistaxis is a symptom of much diagnostic importance; especially is this true when it occurs in a patient complaining of headache. Almost all of the 112 cases who were able to tell how their sickness began, stated that they first began to have headache

or pain in the head; and those who had nose-bleed almost invariably expressed relief from the headache after the bleeding. From the almost uniform presence of headache and flushed face in the early stage of typhoid fever, there seems to be a passive congestion of the brain and whole head, and the hemorrhage occurs from a rupture of the vessels of the schniderian membrane from over-distension. Though epistaxis often recurs repeatedly in the first week of the fever (in some of the cases we have recorded, as often as five or six times daily), it is not apt to be abundant, and seldom if ever calls for treatment. It is different when it occurs in the second or third week. It is then due to an acute hemorrhagic diathesis, and may require special treatment. Though the hemorrhage was not excessive in either of the three cases we observed, the fever was very severe, and two of the cases were fatal.

Diarrhœa. This is the most constant symptom in typhoid fever except the increase of temperature, but it is not usually one of the earliest symptoms, and taken alone is of little importance in point of diagnosis. The character and odor of the discharges are of importance, and when they present that badly cooked pea-soup appearance and that peculiar odor, more easily recognized than described, are pathognomonic. The diarrhœa is due to the catarrhal inflammation, said to be specific, which so universally affects the mucous surfaces in typhoid fever. We may moderate it by treatment but we cannot check it entirely, and it is not desirable if we could, for it is the experience of all, I believe, that a lax condition of the bowels is most favorable in this disease.

We have stated that diarrhœa was present in 77 of the 112 cases. It was present in this number in a degree to call for treatment, and in 25 more the bowels were free. As a rule, treatment was not resorted to where there were not more than four or five stools daily. The remedies first given were, olei terebinth and tincture opii in emulsion, the formula generally used being: Olei terebinth, dr. j; Tr. opii, dr. j; emuls. ad oz. j and dr. j doses three or four times daily. This emulsion controlled the diarrhœa in nearly all the cases. Argenti nitratis, cupri sulph., or some other astringent, was resorted to in a few cases.

Constipation. We have placed this along with symptoms, from lack of a better place for it. In exceptional cases, constipation

is present in typhoid fever. It was present in 10 of the 112, but in no case was it obstinate. It readily yielded to mild treatment, but it was necessary to repeat the laxative a number of times in each case. The cases in which it occurred were mostly mild, but it was observed that when the bowels were allowed to go unmoved over three days, there was a slight increase of the temperature and an aggravation of other symptoms. If the constipation continued longer than this, a small dose of castor oil was given, and if this did not act, an injection was ordered; no case required more than this, and usually the oil was sufficient.

Rose Spots. These were observed in 50 of the cases under consideration, and possibly occurred in a larger proportion, as there was a goodly number of the 112 that did not come under observation until the third or fourth week of the disease, late enough for the rash to have been present and disappeared. This eruption has been given a wide range of importance by different observers, some making it *the* characteristic of typhoid fever, others barely mentioning it as a symptom. Perhaps this diversity of opinion has mainly arisen from the varying proportion of cases in which it is present in different epidemics and in different places. Trousseau says: "In some localities, as at Paris, the spots are found with sufficient constancy to justify our looking out for them as the most obvious pathognomonic sign, but there are other places in which attentive observers have never been able to see them." Flint observed the rash in 49 of 73 cases, but says that he has observed the spots in other diseases. If all do not admit that this eruption is peculiar to typhoid, I believe none deny that it is a sign of much diagnostic importance.

In the 50 of the 112 cases in which the spots were present, in four the rash began to appear the first week, 38 in the second week, and eight in the third week of the disease. The earliest it was observed to appear was on the fifth day, the latest on the eighteenth; in the greatest number of cases on the twelfth day. The duration of the rash was not noted, and it was not observed that it bore any relation to the severity of the disease. It was present in a number of the mildest cases and absent in many of the severest. Of the 20 fatal cases, it was only observed in 7, but as the majority of these were admitted late in the disease, it might have been present in a greater number of them. Successive

crops of these spots have been observed to appear in the same patient Trousseau relates a case in which there were three separate eruptions. This reappearance of the rash was not observed in any of the 50.

Blue Spots. These were only found in two cases, and I am inclined to think are, in epidemics in this country, of more interest as a rarity than importance as a sign. Trousseau speaks of the blue spots as not uncommon, but he had only observed them in very mild cases. In both cases we observed the spots appeared about the tenth day and ran a course in every way similar to the rose rash. One of the cases was mild, but the other was quite severe. I am not aware that these spots are ever found in any but typhoid cases. In the eruption we observed, there was no elevation of the surface, but simply spots of a pale blue color appearing beneath the cuticle, irregular in outline and varying in size from a three to a ten cent piece.

Temperature. Increase of temperature is the only symptom present in every case of typhoid fever, and we believe its rise and course are pathognomonic of the disease. When we are unable, in the first two weeks of the fever, to make a diagnosis from other symptoms, a few observations with the thermometer will enable us to say positively whether we have a case of typhoid or not.

Thierfelder first called attention to the use of the thermometer in this disease, but Wunderlich, by his many observations and valuable deductions, has done more than any other man to bring it prominently before the profession. We have tabulated twenty-four cases, which will show at a glance the record of the pulse, temperature and respirations in each. The record in each case was not run entirely through to convalescence, but in a number only continued until the acme was passed. We will let the table speak for itself. Perhaps we cannot more forcibly present the importance of the thermometer, as a means of diagnosis in this disease, than by relating the following history: C. P., aged 17 years; servant; Dane: admitted into hospital November 16, 1872. The patient was unable to speak English, but through an interpreter we learned that she arrived from her native country six weeks previous, and that she had had good health up to that time. About the time she landed in this country she began to cough, and this had continued more or less ever since, but she was able to be up

until two days before. This was all we were able to learn of her previous history. On examination we found the patient in good flesh—intellect clear; face flushed; skin hot and dry; tongue slightly coated, white, and a little dry; appetite poor, but not much thirst; bowels regular; abdomen a little full, and tender on pressure; gurgling in right iliac fossa. Cough is not severe, but the patient expectorates considerable purulent matter; marked dullness over upper half of right lung; cavernous murmur in right infraclavicular region. Of course, it was decided that the patient had phthisis, and was not this sufficient to account for all her symptoms so far? Surely there was nothing thus far to warrant us in saying she had typhoid fever also. True, she had a little fullness and tenderness of the abdomen, and gurgling in the right iliac fossa, but these we may get in diarrhœa of phthisis, and, besides this, typhoid fever rarely occurs in consumptives. A record of the temperature was kept, which may be seen by reference to the table, case 15, and from this alone a positive diagnosis of typhoid fever was made, and Dr. Ross presented the patient at his clinic for the purpose of speaking of the complication.

The case ran along through a severe course of the fever without much change in the pulmonary trouble, but as soon as she began to convalesce from the fever, the tubercle rapidly increased, and January 21, 1873, the patient died. A post-mortem examination showed the right lung almost gone, and the left stuffed with tubercle. There was no tubercular disease of Peyer's patches, but there were cicatrices, which showed unmistakable evidence of recent extensive typhoid lesions. We can scarcely conceive of a case presenting stronger evidence in favor of the thermometer in diagnosis than does this case. But where we found the thermometer most practically useful was in distinguishing between remittent and typhoid fevers. I believe it is often utterly impossible, in the early stages of these fevers, to distinguish between them without the use of the thermometer, and I believe, too, that many cases of remittent are called typhoid, and that the wondrous success of some physicians in the treatment of typhoid is thus explained. For the purpose of showing the contrast in the course of the temperature of these two fevers, we have tabulated a few cases of remittent also. It will be seen from this, that while the morning temperature is usually the highest, there is no uniformity in

its course. It seldom continues above 103° over forty-eight hours, and when the remission occurs the fall is sudden, as also the rise if the exacerbation returns. To further illustrate the course of the temperature in the two diseases, we have drawn the following diagram (diagram omitted for want of space) from case 1 of the remittent and case 13 of the typhoid cases.

The thermometer is not alone useful as an aid in diagnosis in typhoid fever; it is of equally as much importance in prognosis. It will be observed, by reference to the table of typhoid cases, that the deductions to be drawn agree in the main with those of Wunderlich. The temperature rises gradually during the first week, and continues much the same into the third week, when, in favorable cases, morning remissions begin to occur; and from the middle of this week the evening temperature begins to descend also. From a lack of early observation, we were unable to fully verify what Wunderlich states to be a rule, that the temperature rises two degrees toward evening and falls one degree before next morning; but of this we have no doubt, and have drawn our diagram to accord with it. With reference to the diagnosis, Wunderlich says, when the temperature rises to 104° by the first or second day of the attack, the disease is not typhoid fever; and when, by the evening of the fourth day, the temperature has not reached 103°, the disease is not typhoid. As regards prognosis, the more important deductions are:

First. If the temperature does not rise above 105° during the second week, and begins to decline by the beginning of the third week, the prognosis is favorable.

Second. When the temperature rises above 106°, and is maintained as high as 105° into the third week, the prognosis is very unfavorable.

Third. If the temperature rises as high as 107°, the case is almost surely fatal. In six of the cases we observed, the temperature rose as high as 107°, and not one of the six recovered.

Fourth. Marked irregularities occurring during the second week demand attention.

Fifth. Convalescence is not completely established until the evening temperature has reached the normal standard.

As in this disease the greatest danger is from the severity of the fever, the reduction of the temperature becomes an important

consideration. According to Niemeyer, the excessive bodily heat produces death by causing paralysis of the heart, and a high temperature, long continued, produces death by consuming the body of the patient. Numerous means have been resorted to for the purpose of reducing the temperature in this disease, but we will only mention those used in the cases under consideration.

In all of these cases, iced and acidulated drinks were allowed freely, and the sponge-bath was ordered twice daily when the fever was high. These were not only grateful to the patients, but had a decided influence in reducing the temperature.

Quinine was administered in a number of cases, with the effect apparently of lowering the temperature. This effect was most marked in cases which, in the second week of the disease, had a difference of as much as 3° in the morning and evening temperature—say 103° in the morning and 106° in the evening. We did not observe so great a difference in but few cases, and are inclined to think it was due to a malarial element. Any way, quinine in gr. v doses three times daily seemed to lessen the evening rise.

The cold bath was only resorted to in two cases, and in neither of these until the temperature had reached 107°. The patients with this temperature were put in the bath at 90°, and kept in fifteen minutes, during which time the bath was lowered to 80°. The temperature of the patient in each case was reduced 6° by the first bath, and the delirium was quieted for a time. The bath was repeated a number of times with similar results, but both cases terminated fatally about the end of the second week. While the bath did not save these desperate cases, it is certainly a very efficient means of reducing the temperature, and, it seems to us, is preferable to packing in wet sheets.

The pulse and respirations, though not of so much importance as the temperature in this disease, are of sufficient importance to demand recording. It will be seen by referring to the table that both bear some relation to the temperature, but do not run so uniform a course. The pulse is the best guide for the use of stimulants, and the rule was, in the treatment of these cases, to begin to stimulate as soon as the pulse became soft and compressible. A pulse of 120 is about as unfavorable as a temperature of 106°, and of 130 as a temperature of 107°.

The respirations are of most value in indicating the severity of the bronchial catarrh so often present in this disease.

Complications—Delirium. This we have said was present in 49 of the 112 cases. It is usually most marked in severe cases, and may arise at any time in the course of the fever, and it may take on any form, from the low muttering to the very violent.

As delirium rapidly exhausts the patient, it is of the utmost importance to control it if possible. Sir Wm. Gull says that it is due to *irritation* of the brain, and not, as some have imagined, to inflammation, and that the one great remedy for this irritation is alcohol. Irritation is doubtless the cause of the delirium, but we did not observe any benefit from the use of alcohol in this complication, though it was administered in the majority of the cases. The great remedy in the treatment of delirium and sleeplessness in these cases was the hydrate of chloral.

Not all of the cases in which delirium occurred needed special treatment, but a number who had no delirium were unable to sleep. Chloral was administered in forty-eight cases, in which one or the other of these were present, and in only five cases did it fail to quiet and produce sleep. It was ordered in gr. xv doses every fifteen minutes, beginning at bed-time, and continuing until sleep was produced or three doses were taken. If the first batch failed, as it sometimes did, after a few hours it was repeated again. No bad effect was observed from its use in this way, and, as we have said, there were only five complete failures. The sleep usually continued from three to six hours. In the worst cases the delirium returned with waking, but was less violent each succeeding time the treatment was given. Before the three-dose rule was adopted, one patient was given the fourth dose, when he fell into a heavy sleep, which lasted nearly twenty-four hours, but he finally roused up and went on to a rapid recovery. From the experience we have had with this remedy, we have no hesitancy in saying that there is *no medicine* used in the treatment of typhoid fever that we would not sooner give up than hydrate of chloral.

Deafness. This, as we have said, was present in eleven cases. It usually appears in the second week of the fever, and when it occurs on both sides, is probably produced by a propagation of the typhous catarrh to the eustachian tube and cavity of the tympanum. This complication does not usually require any special

treatment, and has been mostly spoken of with reference to its prognostic import, though its significance has been very differently regarded. Trousseau regards deafness on both sides as favorable, but when on one side, as unfavorable. In all of the cases in which we observed deafness, the fever was very severe, and three of the cases were fatal. In one case which recovered, there was suppuration of the middle ear and perforation of the membrane of the tympanum; but this and similar cases I believe to be the result of a genuine inflammation, and, when detected, should have the same treatment as an ordinary acute inflammation under other circumstances. When it occurs in severe cases of fever, as was this case, the inflammation may not be suspected until its results are seen; but if the patient is sensible of pain, we are pretty sure to learn of it as soon as it presents. If it is discovered early, local blood-letting, or a continuous stream of warm water directed into the external meatus, will often arrest it. This trouble should certainly never be neglected when it is discovered. In all of the other cases which recovered, the hearing was perfectly restored when convalescence was complete.

Softening of the Cornea. This is not peculiar to typhoid fever, and only occurred in one of these cases. It results principally, if not entirely, from the constant exposure of the eye to the air through want of power to wink or close the eye while sleeping. Trousseau, acting upon this supposition, introduced the very simple but efficient treatment of mechanically closing the eyes. In this case the lids were closed by means of adhesive strips, and the cornea very soon cleared up. If this complication is neglected, rapid destruction of the eye may result, but certainly so common-sense an item of treatment will not be forgotten.

Parotitis occurred in three cases. This complication has generally been regarded as a very grave one. In the three cases it came on in the fourth week of the fever, and, in two of them, both glands were involved, and suppurated. Both of these recovered, but the other, in which one gland was involved, was fatal. The treatment was, early poulticing, and anodynes sufficient to control the pain. As soon as fluctuation was detected, a free opening was made, and though the discharge was free, it did not continue longer than from an ordinary abscess. In the two cases which

recovered, convalescence was not delayed beyond the usual time of severe cases of typhoid fever.

Intestinal hemorrhage occurred in three cases. Though this has generally been regarded as a grave complication, the two greatest clinical teachers, Graves and Trousseau, have regarded it otherwise. They have even expressed the opinion that it is usually of favorable augury. All three of the cases we observed were fatal. In two, the hemorrhage occurred in the third week of the fever, and was the direct cause of death. One of these did not have any escape of blood, externally, but suddenly went into collapse and died. A *post-mortem* examination showed a large quantity of blood in the colon and lower portion of the ileum. It was found that the hemorrhage had resulted from an erosion of vessels, caused by the separation of a slough from a small but deep ulcer about two feet above the ileo-cæcal valve. The other of these two cases lost a large-sized chamberful of blood during the twenty-four hours preceding death. A number of styptics were administered, but did not arrest the hemorrhage until, finally, the fluid extract of ergot in dr. ss. doses every half hour was ordered, and the bleeding soon ceased. In the third case, the hemorrhage first occurred in the second week, and kept recurring at intervals until the death of the patient on the thirty-fifth day. The obstinacy of friends prevented any autopsy of either this or the preceding case.

Peritonitis occurred in two cases, though perforation did not occur in either. One of these cases presented peritonitis for a week or more before death, which occurred in the sixth week of the fever. On opening the abdomen, in the autopsy of this case, the intestines were found to be quite firmly attached to each other at a number of points, and, in one point, to the peritoneum lining the right iliac fossa. On making slight traction, a number of these patches of attachment separated, leaving openings in the intestines from one-half to three-quarters of an inch in diameter. There was no obstruction of the bowels, and the patient died of exhaustion after the inflammation had subsided. The other patient died in the fifth week of the fever, but did not present any symptoms of peritonitis until a few hours before death. On opening the abdomen of this case, the whole peritoneal surface presented a congested appearance, which was very marked in the

region of the spleen. This organ was very large, and presented an almost gangrenous appearance. The peritoneal cavity contained about half a pint of bloody serum. Extensive ulcerations of Peyer's patches and the solitary glands were found, also considerable enlargement of the mesenteric glands. The treatment was, opium sufficient to control pain, and the turpentine emulsions three or four times daily, with turpentine stupes to the abdomen.

Sequelæ. Of these we have only noticed two, though others of less interest occurred. Right hemiplegia, with aphasia, was met with in one case, and we mention it because it was of considerable interest to us. It occurred in an intelligent patient on the twenty-first day of a severe attack of fever. The patient had begun to improve, but on this day had a severe chill, which lasted three or four hours. By means of stimulants and artificial heat a reaction was finally brought about, but when the chill had passed off the patient's right side was paralyzed, and he was unable to speak, though he evidently knew what was said to him, and tried to speak. In a few days the patient began to move the extremities a little, and answer *yes* to everything said to him. He remained in the hospital until the fifty-fourth day from the attack of fever, and had gradually added to his vocabulary until he could speak short sentences intelligently. The paralysis had improved very much, but the patient was yet unable to walk. Of course, the paralysis and aphasia were most probably caused by an embolus plugging an artery in the left hemisphere of the cerebrum. In addition to tonics and nutritious diet, the patient was ordered a solution of the iodide of potassium and bichloride of mercury, on the theory that these remedies favor absorption.

Œdema of Left Lower Extremity. Dropsy or œdema of some part of the body is not an uncommon sequel of typhoid fever, but was only met with in three of these cases, and in all three occurred in the left lower extremity. In each case the œdema came on in a similar manner after convalescence appeared to be established. The patients first complained of severe pain in the left groin, but after a day or two the whole extremity became more or less painful, and began to swell. When the œdema became excessive, as it did in each case, the limb presented an appearance very similar to that of phlegmasia dolens. The cause of the œdema was doubtless plugging of the femoral veins by thromboses. Its

occurrence in the left extremity in each case was perhaps a coincidence. The only special treatment consisted in elevating the limb and enveloping it in cotton and oil-silk. Two of the cases were under observation for a number of weeks, and though the œdema had subsided very much, there was still considerable swelling and stiffness when the patients were lost sight of.

Mortality. This, according to different authors, varies from one death in twenty to one in four. Of the 112 cases twenty were fatal, or, one death in five and three-fifth cases. Of the twenty fatal cases, six were moribund on admission, and died a few hours afterward. All of these were severe cases, and had reached the third week of the disease. I do not know that I will have a better opportunity than at this point to enter a protest against the *inhumanity of removing typhoid fever patients after they have reached this stage of this disease.* I do not remember an instance in which a severe case of typhoid was brought into the hospital in the third or fourth week, and recovered. Patients that have advanced so far in the disease, even though it be severe, and the scale seems to waver between life and death, usually recover with proper care. But let them be bundled into an express wagon, or an ambulance even, and driven from one to four miles, and it is very evident which way the scale will turn. They might just as well be knocked on the head and taken to the dead-house direct, so far as results are concerned. Common humanity certainly demands that these patients be provided for where they are found, that they may have, at least, a chance for their lives.

Of the fourteen remaining fatal cases, only six were uncomplicated. All of these died between the twelfth and seventeenth days.

The average duration of the disease, in all of the fatal cases, was about twenty-three days. In the cases which recovered, the average duration was thirty-two days.

Of the whole number of cases, ninety-four were males and eighteen females, and of the fatal cases, sixteen were males and four females.

A word in conclusion with regard to general treatment and diet. As soon as the diagnosis of typhoid fever was made, the patient was put upon the following solution :

R. Potassæ Chloratis, - - - - - dr. ij.
Acidi Muriatici, dil., - - - - oz. ss.
Syrupi Simplex, - - - - - - oz. j. ss.
Aquæ, - - - - - - - - oz. iv.
M. S. Tablespoonful every three hours in water.

This was continued until the severity of the fever was past, and in mild cases no other medicine was given. When patients began to need stimulants they were first ordered milk punch or wine whey, and if this was not sufficient, the following solution was ordered:

R. Strychniæ Sulphatis, - - - - - gr. j.
Acidi Nitrici, - - - - - - dr. j.
Syrupi Simplex,
Aquæ, - - - - - - - *aa* oz. ij.
M. S. Teaspoonful once in six hours.

When active stimulation was demanded, a solution of quinine and whisky, gr. ij to the oz. j was ordered in oz. ss. doses as often as required. The patients were kept as quiet as possible, and strict attention was paid to cleanliness. It was made the imperative duty of the nurses to empty all discharges as soon as passed, and disinfectants—carbolic acid, chloride of lime and bromine—were used freely. There was not a single case of typhoid fever developed in the hospital during the treatment of these cases, though they were mixed in promiscuously with other patients. I believe that the thorough cleanliness and disinfection account for it.

Owing to the crowded condition of the hospital, one of the most important agents in the treatment of the disease—*pure air*—was deficient. Each patient only had between 700 and 900 cubic feet of space, not more than half as much as they ought to have had. The diet, though nourishing, was strictly fluid. Beef-tea, milk, broth and soups were given in abundance and as regularly as medicines. This diet was continued until the evening temperature had returned to the normal standard.

ARTICLE II.—*A Case of Vesico-Vaginal Fistula.* By J. E. O'BRIEN, M.D., Scranton, Pa.

Mrs. O'H ——, of Dunmore, Pa. began to suffer from incontinence of urine two weeks subsequent to a severe and protracted labor. On examination I found the cause to be a rent in the bladder, situated about the centre of the vesico-vaginal septum, and of a size sufficient to admit readily the index finger. Of course every drop of urine dribbled through it, producing the usual symptoms, which always render life miserable to these sufferers. I waited a month for the patient to get well over the effects of parturition, and on July 14th made the operation, as follows: One assistant (Dr. Fisher) held the speculum, one administered anæsthetics, and a third attended to sponges. Having pared the edges of the fistule, I introduced six silver sutures, and then considered whether I should use Sims' or Bozeman's method of fastening them. Being prepared to use either method, I chose the former, for the following reasons, which I have taken pains to analyze and arrange as a contribution to the study of this subject:

1. Sims' method is simpler.

2. It reveals to sight and touch the condition of each stitch, and permits full control of its tension, so that after twisting all the wires the surgeon can tighten (or loosen) some which will probably require such adjustment.

3. It permits inspection and treatment of the wound throughout the after treatment of the case.

4. It permits the consistency of the cicatrix to be tested by sight and touch before removal of the stitches, and after removal of each stitch; so that

5. Alternate stitches may be removed, or one stitch a day, which may sometimes be a prudent precaution, as it is in hare-lip and in cleft palate.

The removal of one stitch may reveal the necessity for retaining the others, which can be done in Sims' method.

On the other hand, Bozeman's method is

1. A little more difficult, keeping the patient longer under ether; it is too nice a point to require each hole in the leaden shield to correspond exactly with each wire.

2. It hides the condition of the stitches, even before they are tightened, and places a leaden shield between their tension and our knowledge of it.

3. It hides the wound from sight and treatment. (It is said also to protect it from the secretions, but I think syringing quite as effectual, especially if facilitated by the use of Sims' speculum.) As to supporting the wound, which the shield is said to do, there would seem to be some doubt of its utility, while there can be no doubt that the suspension of a piece of lead by the stitches increases their tension.

4. It hides the consistency of the cicatrix from sight and touch, until control of it is partially resigned.

5. It compels disturbance of all the stitches in removing any of them.

I admit that all these points of difference are slight, but they may be considered sufficient to turn the scale of preference until larger statistics declare more positively on the subject.

As between the methods of Sims and Bozeman, I find by reference to a few authorities at hand, that Gross declares in favor of Sims' method, except, perhaps, in vesico-uterine and urethro-vaginal cases; so does Emmet. Thomas is non-commital, praising both. Hamilton seems to prefer Bozeman's method. Gardner, in a note to his translation of Scanzoni, expresses decided preference for Sims'.

In conclusion, it is only fair to say that Dr. Bozeman deserves the very greatest credit for his great success in treating every form of fistule. In looking over his monograph I am deeply impressed with the importance of his labors in vesico-uterine and other complications.

It may be interesting here to note the success of Simon, of Heidelberg (see Thomas' work) with silk sutures, which success would undoubtedly be greater with silver wire, especially in large fistulæ.

The shields or splints of Simpson, Baker Brown, Agnew, Baltey, *et al.*, are no doubt inferior to Dr. Bozeman's.

My patient was kept constipated for two weeks. Finding the cicatrix firm, I removed all the sutures on the eighth day, and removed the catheter on the twelfth, when the patient urinated *per vias naturales*. She got up on the fourteenth day, and remains perfectly cured.

She passed some sand through the fistula before the operation, and the catheter was almost filled with phosphatic deposit afterwards, but this symptom gave no further trouble.

This operation requires less light than is needed for incision of the cervix uteri, which I have made after Sims' method.

There is a slight defect in most of the tenaculi made for uterine surgery; they are bent at nearly a right angle, which should be more acute to prevent slipping.

HISTORY.

"For centuries, steady, persevering and systematic efforts have been made to render this revolting malady curable."—(Thomas.) "Velpeau, in 1839, thus speaks of cure of these fistulæ: 'To abrade the borders of an opening, when we do not know where to grasp them; to shut it up by means of needles or thread, when we have no point apparently to secure them; to act upon a movable partition placed between two cavities, hidden from our sight, and upon which we can scarcely find any purchase, seems to be calculated to have no other result than to cause unnecessary suffering to the patient.' Vidal de Cassis says: 'I do not believe that there exists in the science of surgery a well authenticated, complete cure of vesico-vaginal fistula.'"—(Thomas.)

There were, no doubt, occasional cures in exceptional and fortunate cases from the time when Ambrose Pare described the disease in the sixteenth century until our day; yet Druitt's Surgery (1848) dismisses this operation in two lines, and recommends a rubber bag to catch the urine. The elements of success may have been discovered, but were not yet combined and utilized.

Later still (1861), Gardner, referring to his translation of Scanzoni, says: "In the foregoing dissertation upon urinary fistulæ, the author evidently shows that in his opinion (and he represents German, if not European knowledge,) there is little hope for the poor woman suffering from a severe form of this disease; and the statistics of European surgery—little reliable as some of them are—support this view. We say 'little reliable,' for many of these surgeons claim success where it does not exist. The operations of these great surgeons are public; the *results* private."

Dr. Valentine Mott stated in public (Report of First Anniversary of the N. Y. Woman's Hospital, 1856): "I was present when eight cases were operated upon—seven by Jobert and one by

Roux, two of the most distinguished surgeons in Europe—*and all of them failed.*"

Honor, then, to American genius, which has by the labors of Marion Sims especially, and of Bozeman, Emmet and others, combined the essentials to success in this operation, and which has made cure the rule instead of the exception.

I know of no case in which the transition from misery to health and comfort is more marked than in the patient who is cured of vesico-vaginal fistula.

ARTICLE III.—"*Infants and their Food.*" *The Reviews—Summary.*

We are not disposed to extend reviews with the author of the paper above named, much less personal retorts, at the expense of the valuable space of the CHICAGO MEDICAL JOURNAL, the readers of which, and not ourselves, are the proper judges of both his paper and our review; but we cannot help wishing to add a little to that already written. We will endeavor to be brief, and therefore much that might be said, will be left unsaid. It is an axiom that writers and teachers should give their readers and pupils credit for some degree of common sense. It is not always necessary to point out in detail the connecting links between a self-evident or commonly accepted truth, and conclusions nearly related to it. Ideas are not necessarily true because of age or general acceptance, yet, having these should entitle them to a certain degree of respect, and those who would set them aside should not complain if they meet with sharp resistance. Conservatism and radicalism are ever distinctive, and at variance; sometimes one is in the right, sometimes the other. Error should be uprooted, while truth must stand. Human milk has formed the standard of infant food for about 6,000 years; and the idea exists and has always existed, of its being the only true standard. According to this idea all substitutes should come as near the standard as possible in point of actual composition and relative proportions. By the light of chemistry what is lacking in cows' milk, judged by this standard? *positively*, two elements. 1. *water;* in

proportion to the whole of the solids, about twenty parts in 1,000, or two per cent.; in proportion to the nitrogenous element, the casein, and the salts, a much greater lack exists. 2. Of *sugar*, there is wanting in comparative proportion, 20 per cent. or more. There are in *excess* in cows' milk, of salts, nearly 200 per cent., *i. e.*, in the ratio of six or seven to two parts in 1000.

Relatively there comes in for consideration the proportion of butter; it may be deficient or in excess, according to circumstances, when used. The butter of milk not being chemically dissolved, but simply held in suspension, rapidly rises, hence the last of the milking is richer than the first, and milk poured from the top of a vessel in which it has stood but for an hour, will contain butter in excess.

Of the positive deficiencies one is a drink and the other a food, equally necessary. Does the infant thirst, milk supplies it; does it hunger, milk feeds it; if it thirst, and the standard proportion of water is lacking, it gets too much *food* in supplying its thirst, and indigestion results. If the second positive lack is not supplied, a proximate principle is deficient, and somewhere the system suffers. These are commonly accepted opinions (or more properly facts) that seem to us so plain, and so well and simply founded in common observation and common sense, as to require no long-threaded web of argument to sustain them. Are these truths? If so, did the author's paper, entitled "Infants and their Food" go with or run counter to them? We think the latter. The general object of the article, apparently, was to demonstrate if possible, first, that what we know to be lacking in the substituted food should not be added at all, because injurious when given in *excess;* secondly, of that element which might be deficient, or might be in excess, he would invariably make an addition, and that not advisedly in its own form, but in that of an agent or agents wholly foreign to the milk.

On page 141 he describes, and on the next advises the use of this "formula:" one dram of cod-liver, or oil of sweet almonds, to every three ounces of milk, being an ounce of oil to every three pints. Will the JOURNAL please allow us to restate his chief propositions? On page 132, after quoting a sensible paragraph from Wells' Chem., and flatly disputing it, he proceeds to make the following statements as a basis for further remarks:

1. "By the addition of water no dilution of casein takes place."

2. "It is not physiological to give food in a highly diluted form."

3. "The digestion and assimilation of casein is not assisted by the addition of sugar." (Who says it is, or gives it for that purpose?)

4. "It is the addition of oil that will make the artificial food a healthy substitute for the mother's milk."

In support of these propositions he writes at considerable length, and brings forward many statements by authorities, true enough in themselves, but (as we think) having no relation to such practice as he would have us follow. We have no doubt equally as much learning might be displayed in attempting to prove that black is white.

No. 1, we think we disproved fully in review, page 286; he virtually confesses its error in his review, page 462.

No. 2. Under some circumstances this is true, and others not, as the medical reader will see at a glance. Is not milk itself, with its nearly 900 parts of water, food in a highly diluted form?

No. 3, received due notice on page 287, review.

No. 4, we think has been sufficiently answered in our review, and the present paper.

These four propositions constituted the text of the author's paper, which if already proved unsound, makes it unnecessary to follow him step by step in statements and quotations mainly irrelevant.

As to whether we have or have not fully disproved his chief positions, as to whether HIS observations and inferences regarding the experiments, or *ours* were correct, is for the intelligent reader to determine.

The review of the review. As an exhibition of repartee this does very well, but we think he fails to touch the chief arguments of the review.

On page 462 we are accused, first, of being an old acquaintance; second, of having sore eyes; thirdly, we are quoted from with an interpolated parenthesis in this wise: "We add a *little water* (our own)" etc. Which?

Page 463 consists principally of quotations from Carpenter,

Dalton and others, going mainly to show that "drinks are immediately absorbed or otherwise disposed of," from which we are at a loss to see the proof of the author's anti-diluent theories; and further, that "a degree of solidity" (of food) is necessary to the operation of gastric juice. Does this go to show that the ordinary casein precipitate—always spongy—is too nearly solid for gastric action?

He next *admits* that he has "no objection to a little sugar, if the author pleases." That pleases us. He next asks: "Does the reviewer assert, upon his own experience, that craving sugar is a *natural* appetite?" We most assuredly do. That the appetite for saccharine substances is almost universal, strongest in children, and more particularly noticeable in cold weather, we do verily believe. "What has he to say against the assertion that children may have polyphagia and pica?" We don't know why he should assume that we are defender of morbid appetite and gluttony. The most unkind cut, however, is where water is accused of making a *cowardly retreat* from casein. Oh, what a pity water runs! But consider it *en masse*, friend. Read the concluding stanzas of "Childe Harold." Pages 464–5 are principally taken up with what authorities say about the consequence of sugar taken in *excessive* quantity, and a very wordy attempt to confuse a plain statement relating to simple redness of the mucous surface as an inflammatory indication. Then he intimates that we live in a small town, and we do think he might have spared us that; we are *so* sensitive on the point. (Not Low Point, for it is not low.)

We like his comparison as to the "knocking down," being pleased that he recognized his supineness, as further evidenced by his strenuous efforts to pick himself up.

After quoting at length from Chambers, pages 466–7, we are asked what we have to say to him ("hymn"). A good man, and we have no doubt a good singer.

We willingly join in the chorus when he sings in the praise of fat. Does the author suppose Dr. Chambers ever dreamed of composing such a dirge as "this formula of ours," page 142? Mark you, the royal food spoken of was butter and *honey!* The Hindoo laborer, whose expression is "as good ghee," is said first to devour his gallon of what? *Rice, starch, sugar.* It might have

been added, that he also consumes large amounts of the product of his native *sugar cane.*

In conclusion. The author's inferential diagnosis of "calcified heart" has not disturbed our rest. The questions we have been considering are those of fact, that have an important practical bearing upon matters of life and health, and we are not so sympathetic as to accept new theories without criticism, for fear an author will not feel himself flattered. Personally, we disclaim a disposition "to pluck the credit from honest endeavor," being ever ready to accept new ideas when not inconsistent with established facts. The author ought not to presume that we have any but kindly feelings toward himself.

ARTICLE IV.—*Thoughts suggested by a perusal of Dr. J. S. Whitmire's Paper on Criminal Abortion, published in Journal for July*, 1874. By GEO. W. EMERY, M.D.

That the subject of criminal abortion should command the attention of profession and public, is unquestionably true. The alarming increase of the evil must be combatted, and we should endeavor to stir and agitate the public mind to not only a knowledge of the condition and state of facts, but to remedies therefor.

Dr. W. has in his article in question surveyed one of the sides of this picture to the utter neglect of the other. He commences by remarking on the general tendency to this crime, and that abortion may be produced by many different causes, telling elaborately of the *modus operandi.* The doctor, like many others who have written on this subject, informs us of the existence of law to suppress the sale of the advertised nostrums of the day, but fails to inform us of any efforts on his part to enforce the law. I would remind him of the axiom that "example is better than precept." Have we not, as a profession, enough moralizing on the nature and diagnosis of this *society criminal plague*, and has not the *modus operandi* of this crime, so often detailed by the secular and religious press, become a matter of household knowledge, until we may almost fear that it is not improper to modify Pope, (as far as this subject is concerned,)

'That seen so oft, familiar with his face,
We now endure, and pity, and embrace."

I hope we may in the future have more thought directed to the treatment of this crime, and with this aim in view, would now suggest some thoughts tending in this direction, and divide these into—

1st. The reason for the failure of the laws already enacted.

2nd. Methods which, in the writer's judgment, may assist in decreasing or limiting the evil.

One principal cause for want of enforcement of the law, in my judgment, is found in the fact that an attempt usually involves so great a loss of time and expense, with (if proven) such doubtful results as to just punishment. (See the action of the jury in recent case of Earll, the murderer, for an utter failure of an adequate punishment for the crime committed.) Can any honest, candid mind read with composure the fact printed and sent broadcast throughout the land, that a part of that jury argued the want of crime in the act of that *lecherous thug*. If those men spoke the honest conviction of their hearts, and I have heard many expressions earnestly and sincerely made of a similar nature, then we should first educate the people as a mass to the science of the nineteenth century, in the fact that abortions at any period after the discovery of pregnancy (except in necessary cases, and then not till after medical counsel,) is murder.

I care not what the common law calls it, that is what must be applied to this act by candid investigators of the subject. As another reason for this failure, I believe the aiders and abettors in this class of crime are not properly punished. Where is he who, after causing the trouble, assisted in and winked at the murder of Rosetta Jackson? Also those persons in whose house the unfortunate but principal actor offered up her life as the sacrifice? I say, where are they? and how much less criminal is that barber than was Earll? With what zeal did they who induced with lucre this vampire to the crime, attempt to smother the villainy, and how easily were they permitted to return to the comforts of social life. May we not ask, is this justice and equity? Compare it with other classes of criminal transgressions; are not the accomplices held guilty and punished with the perpetrators? This leads me to the second division of my subject, viz., the consideration of

methods to prevent this crime. I feel that this will not be accomplished, while this crime is recorded on our statute books by the gentle appellation of a high misdemeanor. Let us, as a profession, urge an alteration in this term, and have the act classed where it belongs, viz., with capital crime, and the penalty thereto attached.

In order to arrest the sale of the nostrums whose sole object is to assist in this nefarious work, I would suggest that the wholesale drug houses be subjected to inspection, and all remedies of this class confiscated, and that the expense for the time and trouble, with costs of suit, be also assessed against any house guilty of such sale. This would effectually cut off the supply of this class of remedies from the country drug stores.

In conclusion, I would suggest that the aiders and abettors in this crime should be subjected to severe penalty, and thus taught that they cannot induce a crime, and having by perjury and other means attempted to cover it, walk off rubbing their hands in glee, to think that they may always have a scapegoat and victim for a sacrifice in the medical scoundrel who thus debases his profession.

Progress in Medical Sciences.

ARTICLE I.—*Progress in Obstetrics and Gynæcology.* By A. REEVES JACKSON, M.D., Lecturer on Diseases of Women, Rush Medical College, Chicago.

1. On the Treatment of Chronic Vaginitis. By Dr. HARRISON. (*Obstetrical Jour. of Great Britain and Ireland*, July, 1874; *Virginia Medical Monthly*, July, 1874.)

2. The Treatment of Amenorrhœa by Galvanization of the Endometrium. By Dr. JAMES J. WHITTAKER, (*The Clinic*, July 25, 1874.)

3. Cauterization of the Uterus. By Dr. WM. A. GILLESPIE. (*Virginia Medical Monthly*, August, 1874.)

4. Chloral Hydrate as an Anæsthetic During Labor. By U. S. PLAYFAIR, M.D. (*London Lancet*, Feb. 21, 1874.)

5. The Normal Temperature, Pulse and Respiration of Puerperal Women. By Dr. G. W. LINN. (*Philadelphia Medical Times*, May 9, 1874.)

1. Dr. Harrison speaks in terms of praise of the following method of treating chronic vaginitis: In obstinate cases, and especially where the touch reveals a thickened and roughened condition of the vaginal walls, it is idle to waste time with weak solutions of alum, sulphate of zinc, nitrate of silver, tannin suppositories, etc. We must proceed at once to the use of the stronger caustics—either chromic acid or the solid nitrate of silver. If chromic acid is used, it should be diluted with an equal quantity of water, and the walls of the vagina having been exposed by a speculum, a thorough application should be made to the diseased surface.* A piece of cotton, saturated with glycerine, having a string attached to facilitate its removal, is then introduced into the vagina, and should be removed by the patient the next morning. Copious injections of flaxseed tea, at a temperature of 98° F., should be used two or three times daily. Hot water injections should also be used morning and evening. The nitrate of silver is preferably used in stick. It causes a good deal of pain for two or three hours; wnen excessive, a solution of common salt must be thrown into the vagina. A glycerine dressing should be introduced after its use, as after the chromic acid.

After the immediate effects of the cauterization have disappeared—and in the case of chromic acid it may require a week—one of Sims' glass dilators, such as he uses after his operation for vaginismus, is introduced, and the patient directed to wear it continuously. It should be dipped in warm water and then in glycerine, before being introduced. In obstinate cases, simple cauterization will disappoint our expectations, but if succeeded by the use of the glass dilator, the worst cases will yield sooner or later; unless, indeed, the disease depend upon incurable constitutional affections.

The favorable action of the dilator is threefold. In the first place, by keeping the inflamed walls of the vagina apart, rest is secured; secondly, with the distension of the vaginal walls, compression is exercised upon their blood vessels, and hyperæmia is moderated; and, thirdly, the pressure upon the hyper-plastic tissue

* [The application of chromic acid, nitrate of silver, or, indeed, any caustic, to an inflamed mucous surface, will be found much more efficient if the part be previously thoroughly cleansed with a solution of chloride of sodium, followed with warm water. J.]

causes its atrophy. The size of the dilator must be adapted to the requirements of the individual case, for it is possible to put in such a tight-fitting vaginal plug as to cause sloughing. It should be kept in position by a T bandage. After the glass dilator has been used a week or more, a marked improvement will be apparent. If the cauterization has to be repeated, it should be followed by flaxseed tea and glycerine dressings for several days before using the dilator. The length of time during which the dilator should be worn will depend upon the gravity of the affection. A few weeks may suffice, or it may require months to effect our purpose.

Of course it is essential to study the causes which have led to the local disease; for if the latter is combined with chronic endometritis, displacement of the womb, or if it be due to chlorosis, treatment must be primarily directed to these affections.

It is hardly necessary to add that, while local treatment is in progress, attention should be given to a proper regulation of the diet, tonics administered when required, especially iron in cases of anemia. The patient, if a married woman, should live *absque marito* until a restoration to health occurs.

2. Dr. Whittaker relates an interesting case of a young lady twenty-two years of age, who had never menstruated, although the uterus and mammæ were well developed, and whose general health was excellent, being only interrupted at irregular intervals by headache and abdominal pains. The case was treated with iron, cod-liver oil, quinine, and the entire list of emmenagogues, in conjunction with proper food, exercise, and the most favorable hygienic influences. The foregoing means having failed, the galvanic current was used for three months, one pole being placed over the sacrum and the other over the pubes. Trial was next made of the faradic current, three times a week for four weeks, the sessions being each five minutes in duration. These failed, and six months elapsed before treatment was again instituted. Then the uterus was alternately subjected to galvanization and faradization, after the manner of Golding Bird; one pole tipped with a gilt ball being held at the os uteri, while the other was depressed over the fundus uteri on the abdominal surface. This was continued two months, during the last two weeks of which

time the ball electrode was replaced by a sound-shaped pole, which was inserted into the cervix up to the internal os. Currents of different degrees of intensity, and currents in different directions, were used, but all were alike of no avail. Another interval of four weeks without treatment elapsed. The patient was then induced to allow one more trial. A fine, gold-pointed electrode was inserted directly into the cavity of the uterus, and the other (positive) pole applied over the fundus uteri. An interrupted current from twelve cups was used. The second application was followed by a faint "show." The treatment was faithfully continued for another month without further result, when it was finally discontinued. A short time after (the author does not say how long) the patient presented herself with the joyful intelligence that her menses had appeared and lasted three days. No further history of the case was given.

3. There are a good many ways of cauterizing the uterus, and Dr. Gillespie calls attention to still another expedient, which he characterizes as a "simple, easy and efficient plan for cauterizing the canal of the cervix, and even the cavity of the body." It is as follows:

Take an ordinary sponge tent and coat it with beeswax, and then roll it for some time with a knife in powdered nitrate of silver, which will sink into and adhere to the wax. Then, through a suitable speculum, carry the prepared tent through the cervix, and, if desirable, to the fundus, and let it remain twenty-four hours. The author states that no remedy, in his hands, has done so much good in so short a time, in chronic inflammatory engorgement or ulceration of the os and cervix uteri, and he has never known any unpleasant results from it.

4. In a lecture recently delivered by Dr. Playfair, he stated that chloroform as an anæsthetic during labor has a tendency to do more than is desired; that while it lessens the pain, it at the same time lessens the strength of the uterine contractions, thus prolonging the labor. He likewise objects to its use on the ground of its predisposing to post-partum hemorrhage.

Chloral, on the other hand, he regards as superior in many respects to chloroform, notably in the fact, that while in a marked

degree it diminishes their painfulness, it does not seem to lessen the frequency or strength of the pains.

Our author regards it as a great recommendation that chloral is applicable at a period when we would not think of administering chloroform—towards the termination of the first stage of labor, before the complete dilatation of the os, and when the sharp grinding pains produce more suffering, and are less easily borne than the more forcing pains of a later stage.

In a tpye of labor which is very common among women of a highly developed nervous organization, in whom, prior to the rupture of the membranes, and the complete dilatation of the cervix, the pains are very severe, felt chiefly in the back, and productive of little or no effect in dilating the os, he has found chloral especially valuable. In this class of cases it has usually been the custom to administer an opiate in sufficient quantity to produce sleep; but the disadvantage attending this plan is, that the labor is suspended, and much time lost. If, however, chloral be employed instead of the opiate, the same refreshing sleep will be obtained without any suspension of the pains or the protraction of the labor. The character of the contractions, too, will be altered; they will become steady and useful. Also, in cases where there is rigidity and spasm of the cervix, or where the latter is thin and rigid, with a sharp edge, the chloral is exceedingly useful. Soon after it has taken effect, the author has observed, not unfrequently, a thin os, which had remained unaltered in character for many hours, dilate rapidly, far more so than when chloroform is inhaled for this indication.

Dr. Playfair administers fifteen grains of the drug when the first stage of labor is approaching completion; this is repeated in about twenty minutes. Usually, after the second dose, enough has been given to bring the patient under the influence of the remedy. The subsequent administration must be regulated by its effects. If the patient be drowsy and relieved, a third dose need not be given for an hour, and then half the quantity will probably be sufficient to keep the patient in a somnolent condition. It is seldom necessary to give more than a third dose, and the author has never given more than a dram of the medicine in an entire labor. By this lessening the quantity after the second dose, and increas-

ing the intervals between their administration, a full and sufficient effect can be kept up for many hours.

5. In regard to the temperature, pulse and respiration of puerperal women, Dr. Linn has made careful observation of twenty-five cases occurring in the Philadelphia Hospital. The cases were in every respect normal, and furnished the following results: 1. That the normal temperature of the puerperal woman is about 0.6° F. higher than that of the healthy human being, if we accept the statement of Wunderlich, that the mean normal temperature is 98.6° F. 2. That the normal pulse of the puerperal woman is not more frequent than that found under ordinary conditions in a state of perfect health. 3. That the number of respirations is increased, if the statement of physiologists be received, that the number of respirations of the healthy women ranges from 18 to 20 per minute. 4. That the generally received opinion, that the secretion of milk is attended by an increase of temperature of one or more degrees, and an increase in the frequency of the pulse of ten or twelve beats per minute, is erroneous. 5. That a temperature of 100° F., or a pulse of 100 or over per minute, in the lying-in woman, is indicative of some pathological process, which it behooves the accoucheur to discover at once, in order that proper measures may be taken to arrest its development and remove the evil.

ARTICLE II.—*Progress of Surgery.* By JNO. E. OWENS, M.D., Lecturer on Surgery, Rush Medical College, Chicago.

1. On the Nervous Mimicry of Diseases of Joints. By SIR JAMES PAGET, Bart., F. R. S., etc. (*Lancet*, November, 1873; *Braithwaite's Retrospect*, July, 1874.)

2. Nervous Mimicry of Diseases of the Spine. By SIR JAMES PAGET, Bart., F. R. S. (*Lancet*, Nov., 1873; *Braithwaite's Retrospect*, July, 1874.)

3. Injection of Chloral in Tetanus. By M. ORE, Professor of Bordeaux Medical School. (*Medical Times and Gazette; Braithwaite's Retrospect*, July, 1874.)

4. Fracture of the Clavicle Treated by Placing the Arm Behind the Back. By M. BROCA. (*Medical Press and Circular*, Dec. 24, 1873; *Braithwaite's Retrospect*, July, 1874.)

5. Amputation at the Hip-Joint by Esmarch's Method. By Dr. CHAS. I. GIBB, Consulting Surgeon to the Newcastle Infirmary. (*Lancet*, Jan. 31, 1874; *Braithwaite's Retrospect*, July, 1874.)

6. Extensive Disease of Knee-Joint; Amputation Through the Thigh; Bloodless Operation; Recovery. By J. KELLET SMITH, Esq., Stanley Hospital, Liverpool. (*Lancet*, Dec. 20, 1873; *Braithwaite's Retrospect*, July, 1874.)

7. On Bloodless Operations, as Illustrated by the Use of the Galvanic Cautery. By THOMAS BRYANT, Esq., Surgeon to Guy's Hospital. (*Lancet*, Feb., 1874; *Braithwaite's Retrospect*, July, 1874.)

8. Stricture of the Urethra. By FESSENDEN N. OTIS, M.D. (*New York Medical Journal*, April, 1874; *Philadelphia Medical Times*, May 16, 1874.)

9. Exploration of the Abdomen. By Prof. DENNING and others. (*Medical Press and Circular*, June 10, 1874.)

1. Mr. Paget, after reminding us of the fact that inflammation of a joint, either very acute or of long standing, can hardly exist without visible or tangible exudation in the joint-cavity, or in the surrounding textures; and after stating that swelling, frequently by the sides of ligamentum patella, is sometimes evident in a merely nervous joint—not considerable, but sufficient to make a mimicry of real disease much more close—a swelling similar to the puffiness that may come on in facial neuralgia, or the swelling and conjestion of the conjunctiva in some cases of orbital neuralgia, states, that, on the whole, the absence of swelling makes it very unlikely that a joint is really diseased. The presence of only a trivial swelling, when the nervous and muscular signs of disease are acute, or of long standing, is not indicative of joint inflammation. Such swelling is commonly transient and capricious, and the fallacy may be detected by observing, that at its greatest degree it is not, even after a long time or many repetitions, nearly proportionate to the pain or duration of the disease. A sensation of swelling is frequently complained of when no swelling really exists. A mere complaint of swelling will not deceive if the affected joint be compared with its fellow.

In this paper Sir James gives great prominence to temperature, as the sign most to be relied on in the diagnosis of real and nervous disease of joints. "It is so important to estimate it accurately, that I cannot too strongly urge you to be always studying it. You should feel with the broad surface of your hand every joint very watchfully; comparing each that is supposed to be

diseased, with its fellow supposed or known to be healthy, you learn, as you certainly may, to detect even a small difference of temperature in even a small part of a joint."

A joint not above its natural temperature is not an inflamed joint; whatever may be the other signs of inflammation in it, it is not inflamed. Compare every suspected joint with its fellow. Compare the temperature of the joint with that of the rest of the limb, for the rest of the limb may be, through disease or long defective nutrition, cold; and if one joint in it be always not cold, though it may not be fairly called hot, this may arise from inflammation.

The certainty of diagnosis based on coldness is increased by a coincident dull purplish tint, which is commonly called blue or pink. Such colors may be present at joints long inflamed, but in these cases they are associated with over-heat.

2. If there be no considerable attendant illness, an intense and horrible pain in the spine does not point to serious disease of the spine. Such pain is not always merely "nervous" when it is the only wrong complained of. It may be due to aneurism or cancer. It is not a sign of spinal disease, unless when the pain of some slight disease is greatly exaggerated in a nervous constitution, or in the acutest form of inflammation of the vertebræ—a rare disease, and always associated with serious general illness and impaired mobility of the spine.

Excessive tenderness is characteristic of merely nervous disorder of the so-called spinal irritation, and is usually found at two or more parts of the spine. At these spots nervous patients cannot bear to be touched, and they writhe and flinch when the pressure is very gentle and quite superficial, and yet these tender spots are not painful in moving, coughing, or sneezing.

A merely nervous pain is usually variable, and is more dependent than the real disease on the disorders of distant organs. It is increased by fatigue, both bodily and mental. It is nearly a sure sign of nervous disorder, if pressure on the spine produces shivering or nausea, or a feeling of going-to-be-sick. It is a sign of nervous pain alone, if the pain has continued many weeks or months and nothing has come of it—no immobility of the spine or ribs, no paralysis, no fever, wasting or failure of the general health. When

we find a patient carefully holding his head and neck, or any part of his back, very still, or turning or bending cautiously, we must look for disease of the spine. When the patient is able to tumble this way or that, to cough and to sneeze, without pain, we may be sure that organic spinal disease does not exist.

3. A man, after a wound of the finger, became the subject of tetanus, in consequence of which his mouth became so closed that no remedy could be administered. M. Ore threw an injection, containing ten grammes (154.30 grs.) into the veins. Peaceful sleep followed. This was followed by a second and third injection, with the effect of obtaining a sleep of eight hours.

4. M. Broca, adopting a suggestion made last year by Dr. Michel, recently treated a case of fracture of the clavicle, by placing the arm in a semi-flexed position behind the back, where it was retained by bandage for eighteen days, with the effect of completely adjusting the broken surfaces, and producing an excellent cure. The fracture was near the middle of the bone; was oblique, from above downwards, and from without inwards. A sling was subsequently used.

5. Dr. Gibb, having occasion to amputate the left leg of a youth, eighteen years old, at the hip-joint, at the suggestion of Dr. Page, the house-surgeon, employed Esmarch's method. The patient suffered from malignant disease of the femur. The elastic bandage was applied from the toes to the perineum, a good-sized pad of linen placed over the aorta, just below the umbilicus, and seven or eight turns of elastic tubing made over it. Not a drop of arterial blood was lost till the ligature was loosened, and then only one vessel spouted, the others having been secured. No inconvenience was experienced from the application of the tubing tightly around the belly.

6. The patient had suffered from knee-joint disease for four years. The history of the case shows that in spite of the excessive œdema which was said to exist, Esmarch's method most effectually succeeded in making a bloodless operation; and that, although the pressure was kept up for half an hour, there was no sloughing.

7. The disadvantages which Mr. Bryant associates with Esmarch's method are the following:

(*a.*) The prolonged and general capillary oozing of blood, from the tissues, following the removal of the elastic tubing.

(*b.*) The possibility that this secondary oozing may interfere with or prevent the immediate union of a wound.

(*c.*) The danger of injury to the larger nerves by undue compression. Langenbeck has recorded three instances in which, by this pressure applied to the upper extremity, some paralysis of the median nerve followed.

(*d.*) The practice does not commend itself in aged subjects, and in others in whom the vessels are diseased; for in such the complete obstruction to the flow of blood into the tissues may be followed by sloughing or want of action.

Mr. Bryant suggests that it would be wise to describe the operations performed by Esmarch's plan as examples of bloodless operating, reserving the term bloodless operations to those performed without blood from beginning to end.

With respect to the bloodless method by the elastic band, as suggested by Professor Dittel, one grave, practical objection is the fetor connected with the sloughing process; and unless its advocates can show that it possesses some equivalent advantages, it will never find a place in ordinary surgical practice. From 1872 to the end of 1873, Professor Dittel, by means of the elastic ligature, cured nævi, cases of anal fistule and sinuous passages. He has also removed by it a cancerous breast, amputated three legs, ligatured many arteries, and treated cases of hydrocele and phimosis, together with many examples of cancerous and other tumors. Sir Henry Thompson, its advocate in England, has applied it for the removal of a breast, which, by the way, did not come away for twenty-eight days. Mr. Bryant seems thoroughly convinced of the value of the galvanic cautery and its superiority over both Dittel and Esmarch's methods, for the performance of the bloodless operations. In comparison with this method (galvanic cautery) all other so-called bloodless methods are delusions. The battery must be in good working order, and the instruments complete and whole. The author of the paper has considered the use of the galvano-cautery under different headings, and demonstrated its value by a record of cases: operations on the

tongue, penis and anus; the removal of tumors, the destruction of cancers, and the cure of lupus; the treatment of nævi.

In respect to operations on the tongue, since there are none in which, without its use, hemorrhage is more troublesome or dangerous, there are none with its use, which more satisfactorily illustrates its bloodless character. By the use of the galvano-ecraseur, carefully employed, no fear of bleeding need disturb the mind of the operator; and what was formerly a very serious measure has become a comparatively simple one.

By means of Mr. Bryant's method four cases of lupus are reported cured, viz.: one of four years' standing, cured in twenty-four days; one of four years' standing, cured in twenty-seven days; one of twenty years' standing, cured in twenty days; the fourth was also successfully treated. In conclusion, it is worthy to be mentioned that seven cases of epithelial cancer, and twelve of nævi are reported cured by the same method.

8. Dr. Otis makes the assertion that stricture of the urethra is absolutely within the reach of curative measures; that, if completely divided, and this division maintained until the healing process has been completed, no contraction can ever take place. He does not deem the division of the stricture more hazardous than rapid, permanent or temporary dilatation.

9. The kind of examination referred to consists in the introduction of the hand, well oiled, into the rectum, by accomplishing the progressive dilatation of the anus, by means of the gradual introduction of two, three, and, lastly, four fingers into the rectum as far as the iliac flexure, and even into the colon, so as to explore the pelvis, and even the whole abdomen as far as the diaphragm. Usually there follows some incontinence of fæces during a few days following the operation. Such exploration is undertaken in cases of obstruction of the bowels, to ascertain the exact seat of the obstruction. The danger of perforating a diseased intestine in such explorations, must not be overlooked.

In the discussion which followed the mention of this operation by Professor Denning before the New York Academy, Dr. C. Leale stated that he had practiced the operation with the intention of exciting the solar plexus in a patient who had attempted suicide with chloroform, and was apparently dead. The operator

gradually attained the pillars of the diaphragm, and, after having mechanically excited the plexus, had the satisfaction of seeing the respirations become more vigorous and the patient restored to life. The dilatation of the anus amounted to six inches, and the hand arrived at four inches above the umbilicus—sixteen inches above the anus.

Dr. Morton performed the same operation on a patient aged twenty-six years, in whom he suspected the presence of a stone in the ureter.

Professor Peaslee admitted its utility in explorations of the pelvic organs, but thought that pushing the hand further might expose the patient to danger.

ARTICLE III. — *Progress in the Practice of Medicine.* By NORMAN BRIDGE, M.D., Lecturer on Principles and Practice of Medicine in Rush Medical College.

1. The Blister Treatment of Rheumatism. By Dr. T. R. PEACOCK, St. Thomas Hospital, London.

2. The Use of Large Injections of Water for Intestinal Obstruction. By Dr. ROBERT BATTEY, of Atlanta, Ga. (*Atlanta Med. & Surg. Jour.*)

3. Local Treatment of Lung Cavities. By Dr. J. H. HUTCHINSON. (*Philad. Med. Times.*)

4. Œsophagismus. By Dr. A. W. FOOT, Ireland. (*Irish Hosp. Gazette—Am. Jour. Med. Sciences.*)

5. Angioleucitis of the Lung. By Dr. REYNAUD. (*L'Union Med.—Am. Jour. Med. Sciences.*)

6. Guarana in Chronic Rheumatism. By Mr. A. E. RAWSON. (*Irish Hosp. Gaz.—Am. Jour. Med. Sciences.*)

7. Therapeutics of Gelseminum. By Dr. W. C. HULL. (*Med. & Surgical Reporter.*)

1. Dr. P. has used the blister treatment for acute rheumatism since 1865. He has a high opinion of it when vigorously applied. The blisters are generally made two or three inches wide, and long enough to encircle the limb. When they have risen, they are dressed with linseed meal poultices for several days. Usually,

the patients do not complain of the blisters, nor is there any serious inconvenience from them; but as soon as the drawing is accomplished there is a marked amelioration in the swelling, pain and constitutional disturbance. The cases most eligible for treatment by this means, are those where several joints are involved and the suffering and constitutional disturbance great. Three to six blisters are applied at once near the affected joints; they are repeated as exacerbations occur, and are applied to joints as they are successively involved.

He believes this treatment often curtails the length of the disease and prevents internal complications. He regards the blisters as less depressing than the alkalis and other constitutional medication, except tonics which he often gives.

2. After quoting from authors advocating large injections of water for intestinal obstruction, and from his own previous writings to the same purpose, Dr. B. advances the theory, which he claims as original, that fluid can be not only forced through the ileo-cæcal valve into the small intestine, but that it may be forced through the whole length of the alimentary canal and out the mouth. Two cases are reported where this unmistakably took place, the quantity of tepid water used being in each case little less than twenty-four pints. In one case, turpentine soap was mixed with the water, and the patient protested she could taste the soap in the clear fluid vomited as the injection was being passed. He had, with Prof. Johnson experimented on the cadaver by injecting cold water into the rectum. "It found no obstacle to its onward progress at the ileo-cæcal valve; it passed easily through the small intestines, stomach and œsophagus and out the mouth."

He gives the large injections advised with a syringe that throws a continuous stream—it being operated slowly. He would have air carefully excluded from the water, believing that air tends to induce sudden discharge of the fluid; and when pain is produced by the injection, he gives anodynes—opium or chloroform, and if necessary he anæsthetizes the patient. He holds this to be altogether the most proper of all means of relief for the various obstructions of the intestines, and hopes to see it supersede the use of the knife in most cases of strangulated hernia.

The novel and distinctive part of his paper is that wherein he shows that *very large* quantities of water may be injected, and to a point far beyond the ileo-cæcal valve, and all *without harm.* This he especially insists on, and combats the doctrine of Dr. Flint, Sr., and others, that large injections of water when pain is produced are hazardous, and are to be used with great caution

3. A good deal has been said and written of late, on the subject of the local treatment of lung cavities by injections into them made by means of a trochar and canula plunged between the ribs and through the lung tissue.

Prof. Mosler, of Germany, and Dr. Wm. Pepper, of Philadelphia, have recently treated a number of cases in this way, and speak encouragingly of the treatment. Prof. M. says his experiments prove that the lung is "more tolerant of external manipulation, and that these external attacks are more easily executed and less dangerous than has been heretofore believed."

Dr. P. thinks, considering the almost hopeless nature of some of these lesions, the treatment should be tried patiently.

Dr. Hutchinson, however, by quotations from the records, shows that the operation has been at three or four different brief periods quite popular, and that it has been in each instance so completely forgotten that it has been as many times advanced as new. This, he thinks, makes a strong presumption against the measure. He holds it to be unadvisable for the following additional reasons: Punctured wounds of the lung in a consumptive will not do well because a similar injury to a healthy lung does well. Any inflammation excited by a wound of the lung is likely to eventuate in caseous degeneration. Injections are not proper treatment for phthisical cavities; they tend to excite inflammation, whereas there should be an attempt to allay it. There is more or less danger of a discharge being by this treatment emptied into an unadherent pleural cavity. He believes with Dr. Hughes Bennett, that all operative interference in phthisis has been a "uniform failure."

4. Dr. Foot reports four cases of this disease; three in men and one in a woman. The cases were alike in occurring suddenly; in there being more or less intermittent dysphagia, and this more easily excited by solid food, by cold and by sour substances; in

the occurrence of hiccough and œsophageal vomiting. The patients were all nervous people and the symptoms were clearly beyond their control, they were not feigned. In none was there evidence of organic disease or hysteria. Cases of œsophagismus appear to be most common in males, while regurgitation proper is most frequent in females.

Dr. MacSwiney (present at the meeting) had seen three similar cases, all in men, and all recovered. In one case there was enormous dilatation of the œsophagus above the seat of spasm. Antispasmodics were alone valuable, and hydrocyanic acid was most efficacious of all.

Dr. Kennedy had seen five cases; all recovered.

5. Dr. R. has coined this new word, *angioleucitis*. He applies it to a lesion heretofore not described, which consists in a vascular turgescence of the lymphatic vessels of the lungs. While this disorder has some relation with cancer, especially of the stomach, he believes a true case of angioleucitis may occur unconnected with carcinoma. The affection is grave, especially when it occurs as a complication of other organic disease.

He reports two cases illustrative of his description of the disease.

6. Mr. R. tried guarana on his own person, as an experiment, for severe lumbago. Fifteen grains gave perfect relief, but on a recurrence of the pain a larger dose was required. He has since experimented extensively with the drug on all sorts of patients, and arrives at this conclusion: "Whenever the fibrous sheaths of the nerves or muscles, the fasciæ or tendons, are affected, guarana gives immediate relief, which lasts twelve to twenty-four hours." He believes that a perseverance in the use of the drug, increasing the dose to forty grains, will entirely remove any of the above-mentioned kinds of rheumatism.

7. Dr. H., with an associate, says he has administered gelseminum in a thousand cases. He concludes it is not adapted to inflammatory diseases. In those in which there is active congestion it does injury. "Its therapeutic scope is confined to certain simple forms of fever." "In bilious, catarrhal and gastric fevers of childhood it is nearly a specific." In typho-malarial fever, where the

malarial character predominates, it often abates the disease. It should, when administered, be rapidly introduced into the system until the characteristic effects are produced on the organs of vision.

Reports of Societies.

Chicago Society of Physicians and Surgeons. *Transactions at Regular Meeting, August* 24, 1874. Reported by RALPH E. STARKWEATHER, M.D.

Dr. John Bartlett, President, in the chair. The Secretary being absent, Dr. F. H. Davis was chosen Secretary *pro tempore*. Dr. F. L. Wadsworth received an unanimous election to the membership of the Society.

Having called Dr. Hamill to the chair, Dr. Bartlett read a report of a case of eclampsia in a pregnant woman, due to uræmia, which was of rare interest, and elicited a very able and animated discussion, sustained by numerous members of the Society. The following is an abstract of the case:

Mrs. M., now twenty-five years of age, began to menstruate at the age of twelve. Her first menstruation alarmed her, and was looked upon as being something dreadful. Rising at night, she went to a well and washed her clothing, bedding and person. Since that event, every period has been one of so much pain and nervous disturbance, that she has regarded herself as having a serious uterine disease. She was liable to hysterical paroxysms upon the approach of her periods, before marriage. At the age of fifteen, while traveling, she went from morning till night without micturating; and upon then attempting so to do, she was unable to accomplish the act. The retention continued for two days longer, until relieved by catheterism.

This was followed by a sickness of several weeks, the nature of which is unknown; but ever afterwards, at irregular intervals, she was liable to fainting turns. These attacks began with palpitation of the heart, indistinctness of vision, a state of semi-consciousness, and of sinking away, as if dying.

In other respects her general condition was excellent. Marrying at the age of eighteen, a year later she gave birth, at the eighth month, to a fœtus that had been dead some weeks. The delivery seems to have been followed by a condition of septicæmia.

The vomiting of the two pregnancies which followed, was unusually severe and prolonged. In June, Dr. Bartlett was called to attend the patient in her fourth parturition. She had uterine pains, intense headache, amblyopia, occasional delirium, great irritability of the bladder, and œdema of the face and hands. The uterine pain was regarded as false. Uræmia was predicted, and the friends notified of possible grave accidents. Wine of colchicum seed and morphia were ordered. The colchicum was given for more than a week, with the effect of removing the cerebral symptoms above named.

July 25, the following was the condition of the patient in the first stage of labor:

Considerable œdema of the face and throat, conjunctivæ conjested; throbbing headache, especially on the right side; intense epigastric pain, described as if the stomach and womb were being torn apart. Morphine diminished somewhat the pain in the head and epigastrium.

The second stage of labor, lasting three hours, terminated at 2 A. M., July 26, by the delivery of a male child, weighing less than four pounds. The third stage terminated in an hour; one hour thereafter the patient complained of noises in the room when there were none, and could not see the cup, containing chloral, offered her. A convulsion immediately followed, succeeded by stupor, during which the patient was bled to ten ounces, and one drachm of chloral was injected into the bowels. In one hour a *second* spasm occurred. A purgative enema was given, and a scruple of chloral administered. Upon consultation with Dr. Byford, it was determined to deplete still farther, and some twenty-five ounces of blood were withdrawn. Croton oil was administered; and eighteen grains of chloral ordered to be given every half hour, till several doses had been taken. A *third* convulsion followed, three hours after the second attack. It was found that neither by the stomach nor rectum would chloral be retained. During the day, convulsions occurred about every three hours, the patient lying stupid during the intervals, but able to be

aroused. Toward night the tendency to spasm was increased, so that an attempt to give medicines by the mouth or rectum, or by the hypodermic syringe, or the exhibition of chloroform, was liable to bring on spasms. There was now occasionally an active, wild delirium. By taking advantage of the stupor following a convulsion, a quantity of morphine was passed under the skin. To increase or renew the effects of morphia, it became necessary to give chloroform, in order successfully to make use of the hypodermic injection. The favorable and satisfactory effect of this medicine was maintained for fifty-five hours; small quantities of water and milk being the only nourishment.

Iced cloths were kept constantly to the head, and during the paroxysms masses of ice were applied to the scalp; serious congestion of the face never occurred.

The urine drawn by catheter on the first day, was found to be one-half albuminous. On the third day it was clear, and not albuminous.

The convulsions returned at the time the milk-fever was to be expected, but were, for several days, of moderate severity. The first series of convulsions were severe, accompanied by insensibility, and followed by stupor. The second were, for a time, milder; the patient retained consciousness, breathed freely, and conversed while convulsed. This second series was thought to have a hysterical element in them. The first series was regarded as those of true eclampsia depending upon *the so-called uræmic condition.* The second series were at first looked upon as simply a manifestation of that movable condition of the nervous system known to characterize the patient.

After a few days, the severity of the spasms increasing and the interval between them diminishing, it was concluded that they were of the same character as the initial convulsions. On July 31st, the water was quite bloody, and, although granular and waxy, casts were exceedingly few—cells similar to the white corpuscle of the blood (the exudation cell of George Johnson; the round, germinal matter cell of Beale), were very abundant, occurring in large numbers, and often in clusters, in every field examined.

By the night of August 2nd, very severe paroxysms occurred every ten minutes, while early the next morning they were as fre-

quent as every five minutes. The intervals between a few spasms was as short as two and one-half minutes.

Dr. Bartlett described the convulsions as follows:

The left hand, the fore-arm being semi-flexed on the arm, was observed to make a gentle motion, as if in the act of beckoning; the next instant the face was drawn powerfully to the left, the mouth drawn violently open and to the left. This state of tonicity soon gave place to one of clonic spasm, affecting all the voluntary muscles. When the paroxysms were severe, there were three stages, viz.: of tonic contraction, of clonic movement, and of paresis. In this latter stage, toward the last, the muscles of the cheeks, jaws, tongue and larnyx lost their power more or less; respiration was whistling while tonicity endured, and stertorous in the paralytic stage. At times, during the intervals, swallowing was very difficult. Early in the attack the left arm and legs became useless; the legs seemed paralyzed, and, at the worst, the arm also; for the most part the muscles of this arm were in a state of half tonic contraction; later in the attack, both arms were thus affected. During a convulsion, the limbs on both sides were similarly influenced. The pupils were normal during the paroxysms; in the intervals they were more or less dilated. Sight was usually impaired. Sometimes, before a convulsion, she would speak of a great flame, and then immediately of a horrid darkness. Even in the tonic state of the most violent convulsions, a superficial respiration could be detected by auscultation; the heart's action was then noted to be regular, though accelerated and enfeebled. During the slighter convulsions, the left side only was affected. The duration of the paroxysms varied from one to two minutes.

On the 11th of August, the disease had reached its worst. Severe convulsions occurred every ten or fifteen minutes; pulse small, weak and quick, and 145; tongue and mouth had a typhoid look; dysphagia; mind very dull. Quinine and brandy were given, and inhalation of chloroform continued for forty minutes, and further convulsions prevented by the use of chloroform and chloral, aided by anti-spasmodics and hypnotics. The convulsions were then followed by violent fits of hysterical delirium. This delirium was plainly uræmic, and indicative of less uræmia than the convulsions. It gave place to the delusions of puerperal

mania, with unusual hyperæsthesia of certain parts of the surface of the body, which lasted eight days, gradually leaving her with a mind sane and unusally active.

Dr. Bartlett then discussed the nature of the convulsions, and the condition of the patient, during the attacks and in their intervals, and mentioned the various medicines exhibited.

The treatment was directed to the protection of the encephalon; to the control of the spasmodic action by anæsthesia or relaxation, and to the elimination of the toxic elements through the bowels, skin and kidney. For this purpose the following remedies were employed: venesection; chloroform (eight pounds), ether (one gallon), chloral, morphine, bromide of potassium, Indian hemp; lobelia, gelseminum, veratrum viride; croton oil, elaterium, cream of tartar, aconite, citrate of potash, hot baths; colchicum, acetate of potash, and digitalis. Tentatively, quinine and galvanism were used without effect. The patient was well fed throughout. The anæsthetics were generally used upon threatenings of a convulsion, and as far as practicable during the attack.

The active treatment extended *through a period of sixteen days* from the birth of the child, in which time *the patient had at least one thousand convulsions.*

As curiosities of the case, Dr. Bartlett mentioned two features: one, a spindle-shaped swelling, an apparent enlargement of a section of the sterno-cleido-mastoid muscles, about at the junction of the upper with the lower four-fifths, for a distance of an inch and a half. This swelling seemed to change *pari passu* with the œdema. The other peculiarity had reference to the management of the case. The first step in the convulsive phenomena was the turning of the face to the left. Now, when the tendency to spasm was least, the arrest of this movement, the forcible holding of the head from turning to the left, would stay, abort, the convulsion. In the early stage of convalescence, also, delusions would be certain to follow the turning of the face toward the left. The nurse was therefore charged with the duty of keeping the face in the line of the body.

The present condition of the patient is one of incomplete convalescence. Traces of uræmic poisoning still remain. Œdema and slight fainting and sinking attacks, common in Bright's dis-

ease, occasionally occur. The urine is now almost free from albumen, and the exudation cells are not numerous.

Dr. Bartlett referred to the hypodermic use of chloral, and said that it produced sloughing of the cellular tissue and integument, unhealthy ulceration and prolonged neuralgic pain.

Dr. Bartlett then called attention to an inhaler used by him in cases where it was necessary to apply chloroform, without the loss of time incident to the ordinary method. It consists of a cup large enough to cover the mouth and nose. Into the bottom of this a concave sponge is held by a transverse stay of wood. The chloroform is poured on the moistened sponge, and the cup is inverted and placed in a shallow vessel, as a saucer, containing water. This arrangement prevents the evaporation of the chloroform, when the inhaler is not in use, so that hours after the anæsthetic is placed on the sponge it may promptly be applied. Dr. Bartlett recommended this inhaler, also, on the score of economy.

Dr. Hamill inquired what was the immediate effect of the powerful remedies, such as gelseminum and veratrum viride?

Dr. Bartlett—The skin became moist; the intervals between the convulsions were prolonged from ten minutes even to an hour. The veratrum acted the best of the relaxing medicines. It tended, however, when long continued, to accelerate the pulse, and make it feeble.

Dr. Hay asked whether it was possible to determine the effect produced on the convulsions by bleeding? In physiological experiments, if an animal be bled suddenly, it will go into convulsions.

Dr. Bartlett—The series of experiments by Richardson on dogs, in which the emulgent veins of the kidney were tied in order to cause an accumulation of urea in the system, showed that, by bleeding one of the dogs, it lived for some time; the one not bled died speedily. In this case a convulsion occurred one hour after the second bleeding.

Dr. Hamill—In the early years of my practice, it was the rule to bleed from both arms at once, and to give jalap and cream of tartar. Whether it is due to the change in woman's body, or of the treatment, more patients recovered in those early days than at the present time.

Dr. Adolphus was of opinion that the convulsions were hysterical, and that tonics and antispasmodics would have formed an excellent line of treatment.

Dr. Freer inquired as to the pathology of the case.

Dr. Bartlett said that, from the outset, the impression was that the convulsions were due to uræmia. The patient is supposed to have Bright's disease.

Dr. Freer—My experience in treating those cases is adverse to the abstraction of blood. Where pathology shows that there is urea in the blood, what good will bleeding do? The effect of urea in the blood, as shown by pathology and physiology, is not that of increasing the force of the blood. It retards the circulation of the blood in the capillaries. There could not be increase of blood pressure in the brain. It is more than probable that the true pathology of uræmia is that of anæmia.

As Dr. Hay has said, it is well known that bleeding will cause convulsions. From a purely scientific stand-point, there is no real ground for bleeding in eclampsia.

Dr. Bartlett—It is excessive bleeding, "bleeding to death," that induces convulsions. The value of venesection in puerperal convulsions was not based on theory, but, as he believed, upon experience. As, in this case, a spasm occurred within an hour after a second bleeding, it could not be claimed that venesection did more than to protect the brain from the effects of the convulsions. In a review of the treatment adopted, certainly no question was more pertinent than the inquiry, What was the effect of the bleeding? Regarding the character of the convulsions, whatever might be their nature, they would have destroyed the patient from their frequency and severity, without treatment.

Dr. Jackson inquired of Dr. Freer, what his treatment has been in such cases?

Dr. Freer—The principal means has been the steady, continual use of chloroform. The case of Dr. Bartlett is not an ordinary one. It is rather like one of hysteria than uræmia, else, unless the patient was different from ordinary women, how could she stand the effects of a thousand convulsions? Active cathartics would relieve the blood of urea, and not impoverish it. Few persons have any too much blood in their systems; they cannot afford to lose this noblest juice of the body. There are other modes of elimination. Probably the convulsions are due to the obstruction of circulation in the brain, the blood not being in a fit condition.

Drs. Hayes, McKennan, James G. Tucker, and Wilder, also engaged in the discussion, of which the notes have been lost or mislaid.

Dr. A. Reeves Jackson gave, verbally, the details of a recent case of chronic vaginitis in a patient fifty-three years of age, illustrative of the efficiency of two means of treatment—injections of hot water, and the use of the glass dilator. Prior to the menopause, there were leucorrhœa, pain, pruritus, and a very irritating, thick, muco-purulent vaginal discharge. There was no uterine disease. The submucous tissue of the vagina was thickened and felt rough. The patient had been subjected to various treatments without relief. A solution of borax had only temporarily relieved the pruritus. Dr. Jackson, after directing the use of injections of glycerine and flax-seed tea for one week, then ordered injections to be given by means of a Davidson or Watson syringe, of from one to two gallons of hot water, beginning with that of a temperature of 98° F. and gradually warming it up to 108° Fahr., repeated daily for two or three days. During the intervals the glass dilator was used. The redness and roughness and discharge disappeared, and the patient fully recovered health.

This treatment separates the walls of the vagina, and so gives rest to the part. Secondly, it lessens the hyperæmia. Thirdly, it causes diminution of the hyperplasia of the submucous tissues.

Where the vaginitis is due to constitutional causes, chlorosis or endometritis, such causes must first be removed. The absence of pain in this mode of treatment makes it a very satisfactory and desirable one. It is beneficial in cervical endometritis. It blanches the surface, lessens the calibre of the capillaries, and contracts the vaginal canal.

Upon motion, the Society adjourned.

Clinics.

Rush Medical College. Clinic for Neuropathology, by Dr. WALTER HAY. Reported by HENRY W. HARRINGTON.

CASE OF IDIOCY, RESULT OF EPILEPSY.—Girl, aged eight years. The mother states that the child was apparently well when born, and up to the age of eighteen months was well and bright. She talked, but had never walked. At the age of eighteen months, she began to have epileptic attacks, and they have continued ever since, sometimes recurring several times daily. No hereditary history of epilepsy or other nervous disorder. Soon she seemed to lose the faculty of talking, and has not talked any since. Has been and is perfectly helpless, requiring constant care. On examination, find the patient poorly nourished, skin pale and anæmic; pupils dilated; conjunctivæ pearly; tongue pale, but clean; appetite good; bowels regular; limbs small and poorly developed, but symmetrical; there is no paralysis, the patient being able to move the hands and feet readily; in fact, she is in constant motion, throwing her limbs around, and constantly striking her hands against her teeth, the mouth being open and saliva dribbling away; and articulates indistinct, meaningless sounds. Has a vacant, staring expression of the face—head of good size and well formed.

Remarks. We have here a case of idiocy and lack of development of the body, due to arrest of development of the brain and spinal cord, this arrest being caused by the long continued and frequently repeated attacks of epilepsy. There are no signs, nor is there any history of organic infantile paralysis. I think the case is hopeful; would advise the mother to send the child to the Jacksonville Asylum, where she can have special care and training. Ordered chloral hydrate to quiet the child and procure sleep; also nourishing diet; fresh air, and to be placed in the company of other children as much as possible.

CASE OF INCIPIENT CHOREA, WITH TENDENCY TO INSANITY.—Boy, aged seventeen years; student. States that he was well until eighteen months ago; has practiced masturbation for several years; has not had a sufficient quantity of good food, and took

very little exercise; commenced feeling weak and tired; had a dull pain in the back and sides; lost his appetite; bowels became costive; had frequent desire to urinate, sometimes passing his water twenty-five times daily; has suffered for some months with involuntary irregular twitchings of the muscles.

On examination, find the patient pale and anæmic; tongue pale and tremulous; sight good; hearing at times defective; pulse, seventy and feeble; temperature, 98⅘°; respiration, twenty: patient seems dull, and indisposed to mental or bodily exertion; extremities are cold; there is a history of insanity in his family.

Remarks. In this case we have an inherent tendency to disorder of the nervous system, only awaiting some exciting cause to assert itself. The patient's habits of over study and deprivation of proper exercise and food, combined with the abnormal irritation, caused by the habit of masturbation, have served to impoverish the nervous centres, this being first manifested by instability of motor nerve cells, and consequent irregularity in muscular action, the same in kind but not in degree, as occurs in fully developed chorea. The intellect is also impaired; he is subject to morbid sensitiveness; exaggerates his troubles and is easily discouraged; there is an innate instability of the nervous system, and a tendency to insanity and convulsive forms of disease. The treatment in this case must be largely moral. He must stop the bad habit. If necessary to bring this about, blister the penis. He should have nutritious diet; tonics, as iron and strychnia; also active occupation in the open air, in order to develop the bodily strength and vigor.

Case of Chronic Myelitis.—Man, aged forty years; railroad laborer. States that he has been much exposed to cold and wet, and has been obliged to work in a stooping position; was well until one and a half years ago; commenced having pain in the back, increased by motion, also shooting pains in the legs; says his legs felt stiff and numb, and his feet heavy. The pain in the back was not severe when he was lying down; he has also been troubled by involuntary twitchings of the muscles of the legs; says that it seems as if the sight in the outer vertical half of the left eye was destroyed. Appetite fair; bowels sometimes loose, at others costive; he has continued getting worse up to the present time.

On examination, patient well nourished; tongue normal; pupils symmetrical; pulse, eighty; temperature, 98⅘°; respiration, eighteen; patient has trouble in walking, drags his toes; reflex excitability is much increased; there is tenderness on pressure of the spine over the upper three or four lumbar vertebræ; intellection is not impaired.

Remarks. This, gentlemen, is a somewhat complicated and obscure case. The patient, after exposure to cold and wet, and undergoing severe muscular labor, requiring continual stooping, is attacked by pain in the back, shooting pains in the legs, and loss of sensation—also difficulty in walking, his toes dropping, and catching easily, showing that the muscles are partially paralyzed, the extensors more than the flexors. Evidently the anterior columns of the cord are diseased, but in what form? It is probably a case of inflammation of the spinal cord, gradually extending from before, backwards, involving the posterior columns to some extent, as is indicated by the perverted sensations, and increased reflex excitability. This inflammation has resulted in either induration or softening of the substance of the cord, it is impossible to say which. There is also some degree of meningitis indicated by the pain in the back being increased by motion, and by the involuntary jerkings of the muscles. The main indication to be fulfilled in treatment, is to diminish the amount of blood sent to the cord. For this purpose we order—R. Fld. ext. secale cornut. dr. j, once daily at first, to be increased if necessary. This operates by stimulating the vaso-motor nerves, and exciting contraction of the muscular coat of the blood vessels, and, consequently, diminishing their calibre and the amount of blood sent to the parts, its action being chiefly directed to the spinal cord.

Hospitals.

The Central Free Dispensary. Department of Gynæcology and Obstetrics. Service of Dr. P. ADOLPHUS.

DYSMENORRHŒA.—Previous to menstruation, where there has been dysmenorrhœa, the pain in the back and hypogastrium is greatly relieved by the use of a spear-pointed scarificator (Buttles'), plunging it into the cervix, and giving it a rapid turn before removal, which causes a very free flow of blood, should congestion exist. If leeches are employed, they should be applied to the perineum, or the inner aspect of the thighs, and not to the vagina or os uteri, for in certain patients the blood will sometimes con-

tinue oozing out for several days, causing trouble and annoyance both to physician and patient.

Should the hypogastric pain be severe, blistering tissue, or several applications of the compound tincture of iodine, over that region, will afford relief. In some cases, after the menstrual period has passed, the cervix may be dilated by Nott's Dilator, or by bougies; occasionally, if mechanical obstruction exists, if the os be very small or conical, it is well to employ Emmet's method of incision of the cervix, posteriorly, instead of laterally, using the scissors and Emmet's knife.

UTERINE NEURALGIA.—To relieve ovarian and abdominal pain, due to chronic uterine inflammation, the following suppository will often be found to be very useful. It is made of one-quarter of a grain of the morphia sulphate, mixed with one grain of the alcoholic extract of belladonna. If the rectum has been previously emptied and well cleared, the absorption of the medicines will be speedy; it is an economical and effective mode of treatment. The recto-vaginal wall is so thin, that ovarian and vaginal inflammation and pain are often best treated by suppositories.

An ointment much used for ovarian and uterine inflammation and neuralgia, is the following:

Pulv. camphoræ, scr. j; ext. belladonnæ, dr. ij; unguenti hydrargyri and cerati simplicis, *aa* oz. ss. M. Ft. unguent. Take of this a small quantity and rub thoroughly over seat of pain.

Sometimes a plaster fulfills the indications more gratefully, and then the following may be used: Take a belladonna plaster, four by six inches (or of whatever size may be desired), and sprinkle upon it four grains of the morphia sulphate and one scruple of powdered camphor.

To act upon the sympathetic nervous system, the following is a routine Dispensary prescription, in diseases of women:

R. Potassii bromidi, gr. x; potassæ bicarbonatis, gr. xx; ext. gelsemini fluidi, gtt. ij; aquæ camphoræ, f. oz. j. M. Sig. Take the same, three times each day.

The formula is likewise useful in vesical irritation, complicating uterine troubles.

THE BOARD OF HEALTH OF THE CITY OF CHICAGO.—Since our visit, the Board, unwilling to remain longer in their narrow, inconvenient and unsuitable quarters, whence they had more than once been driven by torrents of rain breaking in through the roof and its crevices, have removed to commodious apartments in the Honore Building, corner Dearborn and Monroe Streets. We were informed that the past season has been remarkably destitute of any prominent feature of disease, except infantile diarrhœa, in which, however, the mortality has been very large. Probably,

the mortality due to this cause, in children under five years of age, has been, at times, eighty per cent. of the entire weekly mortality.

The chief sanitary event this summer has been the laying down of a large amount of sewers, and enforcing the ordinance compelling connections to be made from each house with the main sewer. The districts have been made more salubrious, and the general adult health has been excellent. In the 7th, 8th and 9th wards, the contrast is very apparent.

Allusion was made to the indifference and laxity which accoucheurs, and especially midwives, exhibit in reporting births. It is apparent to all, how valuable these returns might become in many ways, even if not instantly available; as, for example, in a legal point of view, as a record to determine inheritance; also to determine the rate per cent. in different districts and cities, and occupations; also, in a moral point of view; in some of the New England States there are very few births, relatively, among married people.

The Board is now congratulating itself that it has no patient in the Small-Pox Hospital, and no new cases reported in the city. Lately, in vaccinating, the preference has been given to the use of human vaccine virus, one or two removes from the bovine: it is thought to operate more certainly and mildly; the bovine and vaccine lymph dries and hardens on the quill, and all physicians cannot, or at least do not, get it off.

DISINFECTANTS.—Take a shallow and broad saucer and partly cover it with chloride of lime, then pour upon it an half ounce of impure carbolic acid. To fumigate rooms after death, to the above add a little strong sulphuric acid. Carbolic acid is not now regarded with so much favor as heretofore; it is disagreeable and irritating to the lungs; it impregnates the food, and neighbors are annoyed by its odor.

Editors' Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

The Physiology of Man; designed to represent the existing state of Physiological Science, as applied to the functions of the human body. By AUSTIN FLINT, Jr., M.D., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, N. Y., etc., etc. In five volumes. Vol. V. (with general index to the five volumes): Special Senses; Generation. New York: D. Appleton & Co. 1874.

It is needless to say more of this, the fifth and last, volume of Dr. Flint's work on Physiology, than that it comes fully up to its predecessors in all that has made them already the American physiologist's pride and boast. Upon the great physiological questions of the day the author will be found upon the right side, as illustrated by his remarks upon "so-called spontaneous generation," and elsewhere. We cannot follow him, however, with equal safety beyond these limits; for the occasional glimpses of his metaphysical notions with which we are favored, smack, too much of the all-pervading materialism of the day to warrant our endorsement. Taken as a whole, however, Flint's Physiology must be pre-eminently the text-book of the American student, with which he cannot dispense. H.

A Treatise on Therapeutics, Comprising Materia Medica and Toxicology, with especial reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. Wood, Jr., M.D., Professor of Botany and Clinical Lecturer onDiseases of the Nervous System in the Medical Department of the University of Pennsylvania, etc., etc. Philadelphia: J. B. Lippencott & Co. 1874.

A step in the right direction, at last. A treatise on "Therapeutics;" not simply a catalogue of drugs and what they are good for; not simply a nosological table, and of drugs appropriate thereto; but an attempt to lay the foundation of a true science of therapeutics, with an admirable definition of the term, *i. e.*, "the application of the physiological action of drugs to clinical medicine." The author expresses in his preface a want which every other earnest student must echo, "the want of something more" than the standard treatises on materia medica and therapeutics, and asserts what we most heartily endorse, that "the old and tried method in therapeutics is that of empiricism, or, if the term sound harsh, of clinical experience;" and if his prefatory commentaries upon the status of therapeutics as a science be severe, they must nevertheless be admitted to be true.

His classification of remedial agents is simple and comprehensive, consisting of their division into systematic and non-systematic remedies, and the subdivision of the former into general and local remedies—which classification, like all others, he not inaptly terms "a convenient row of pegs upon which to hang our ideas

and facts, so that they may be easily retained and easily accessible when wanted."

It is gratifying to perceive that the author confidently rests his therapeutical conclusion upon the data of experimental physiology and zoo-chemistry.

It would be a pleasant task, did space and time permit, to give here an extended and detailed analysis of the contents of this work. For while it assumes, occasionally, therapeutical propositions which can scarcely be considered as determined, and others, again, which we do not feel willing altogether to endorse, it, at the same time, elucidates others, hitherto indefinite, and supplies the data for the determination of still more. A careful study of Dr. Wood's book will leave upon the mind of the student the feeling of regret that it is not more detailed, that many important remedies have been omitted from consideration, the author having apparently been satisfied with the discussion of typical remedies. In our humble judgment, the book is altogether the best work on therapeutics in the language, and entitles its author to the sincere thanks of all who wish to escape the trammels of empiricism. H.

BOOKS RECEIVED.

The Complete Hand-book of Obstetric Surgery. By CHARLES CLAY, M.D. Philadelphia: Lindsay & Blakiston. 1874.

A Manual of Surgical Emergencies. By WILLIAM PAUL SWAIN, F.R.C.S. Philadelphia: Lindsay & Blakiston. 1874.

Transactions of the Pathological Society of Philadelphia. Vol. IX. 1871–72–73.

PAMPHLETS RECEIVED.

Smithsonian Miscellaneous Collections. No. 279. The Toner Lectures. Instituted to encourage the discovery of new truths for the advancement of medicine. Lecture III.: On Strain and Over-action of the Heart. By J. M. DA COSTA, M.D., Professor of Practice of Medicine in the Jefferson Medical College, Philadelphia; Physician to the Pennsylvania Hospital, etc. Delivered May 4, 1874.

Transactions of the Linton District Medical Society of the State of Missouri. First to fifth session, inclusive. Mexico, Mo., 1874.

Transactions of the Michigan State Medical Society for the year 1874. Series II. Vol. VI.

The Hypodermic Use of Quinine a dangerous experimental Medication, and rarely justifiable. By STEPHEN ROGERS. New York: D. Appleton & Co. 1874.

The Temperance Question from the Standpoint of the Present. Delivered by JNO. MORGAN MCKOWN, M.D. Semi-annual Address of the Æsculapian Society of the Wabash Valley. 1874.

The Relations of Medical Societies to Progress in Medical Science. Inaugural Address of the President of the Medical Society of the County of Kings, New York. ALEXANDER J. C. SKENE, M.D. June 16, 1874.

Clinical Report of the Lying-in Service at Bellevue Hospital for the year 1873. By WILLIAM T. LUSK, M.D., Professor of Obstetrics and Diseases of Children in Bellevue Hospital Medical College. Reprinted from the New York *Medical Journal*, Aug., 1874. D. Appleton & Co.

Experimental Researches of the Physiological and Therapeutic Action of the Phosphate of Lime. By L. DUSART, *Ex-interne des Hopitaux de Paris.* Paris: 113 Faubourg St. Honore. Price two shillings.

Report of the Board of Health of the City of Philadelphia, to the Mayor, for the year 1873. Philadelphia: Printed by order of the Board.

Address of Joseph M. Toner, M.D., President of the Association. Extracted from the Transactions of the American Medical Association. Philadelphia: Collins, Printer, 705 Jayne street. 1874.

JOURNALS RECEIVED.

The American Practitioner—August.
" Australasian Medical and Surgical Review—June.
" American Medical Weekly, Sept. 5, 12.
L'Anatomie et de la Physiologie, Journal de No. 5.
The Boston Journal of Chemistry—September.
" Canada Medical and Surgical Journal—August and September.
" Clinic, Cincinnati—August 15, Sept. 12.
" Cincinnati Lancet and Observer—Sept.
" Detroit Review of Medicine and Pharmacy—September.
" Druggists' Circular—September.
" Indiana Journal of Medicine—August and September.
" Kansas City Medical Journal—August.
" London Lancet—August.
" Medical Herald, Leavenworth, Kansas—Aug. 1, 15, Sept. 5, 12.
" Medical Examiner, Chicago—Aug. 15.
" Medical Times, Philadelphia—Aug. 15, 22, Sept. 5, 12.
" Medical and Surgical Reporter—Aug. 15, 22, 29.
" Medical Record, New York—Aug. 1, Sept. 1.

The Missouri Clinical Record—September.
" Medical Eclectic, New York—September.
" Medical Mirror, New York—September.
" New York Medical Journal—September.
" Nashville Journal of Medicine and Surgery—September.
" Progres Medical, Paris—Nos. 26, 27, 28, 30, 31, 32, 33, 34, 35.
" Pacific Medical and Surgical Journal—August and September.
" Psychological and Medico-Legal Journal—August.
" Practitioner, London—August.
" Pharmacist, Chicago—September.
" Physician and Pharmacist.
" Peninsular Journal of Medicine—September.
" Richmond and Louisville Medical and Surgical Journal—August.
" St. Louis Medical and Surgical Journal—September.
" Southern Medical Record—August.
" Texas Medical Journal, Galveston—July.
Transactions of the Medico-Chirurgical Society of the State of Maryland. Seventy-fifth Annual Session—April, 1874.
Transactions of the Medical Society of the State of West Virginia. Instituted April 10, 1867. Wheeling, 1874.
The United States Medical and Surgical Journal—July.
Vick's Floral Guide—No. 4, 1874.
The Virginia Medical Monthly—September.

Editorial.

Sponges.

We are all familiar with the qualities of that useful article, the sponge, its active absorption and ready yielding of its contents—qualities which stand exactly correlated, so that the sponge gives forth from its tissues when required all, even to the last drop, which it had absorbed. These sponges are useful only when dead.

There is, however, another species of the genus sponge, whose functions, most actively performed in the living state, are somewhat different from those of the first, for they appear to possess only that of absorption, or suction, rather, by which they extract all that is possible from those to whom they attach themselves. What they have absorbed, they yield reluctantly, and then only by the principle of substitution, by which they may displace their contents by something more valuable.

They suggest very forcibly that they may have been one of the sources from which Victor Hugo derived the inspiration which was developed by his genius into that wonderful word-picture, "*La Pieuvre*" in *Les Travailleurs de la Mer*. That one

sucked the blood of its victim; this one sucks that highest elaboration of the blood, his brains.

Many of our older readers will recognize this being from what has been already said of him; but, for the benefit of the younger members, we will describe his *modus operandi.*

He enters your office with a "smile that is child-like and bland," and a compliment like a sugar-coated pill of aloes—sweet without, nauseous within. He is modest, too, this sponge of ours. He does not ask your purse; he does not even imitate that other fiend, the book-borrower, who, having only money enough for whisky and cigars, cannot buy books, but borrows from his more frugal neighbor, and proves himself always that paradox, "A poor accountant, but good book-keeper." Our sponge only comes to borrow a few ideas; in fact, he would like the use of your brains for an hour, and although they may be busily occupied in earning bread for yourself and family, he cannot wait; he must get to his office by his office hour.

He has a very doubtful case; has made no diagnosis; has called into consultation the learned Professor A. or B., who has agreed with him entirely, and—taken his fee. But the case halts, and now he stops to administer the sugar-coated pill, "knowing that you have paid special attention to such subjects," "he would like your views"—which you are generally weak enough to give—and, with many thanks, and a teeming brain, the *sponge* retires, treats his patient successfully, with modest complacency accepts the credit and the amount of his bill, perhaps publishes his case, giving about ten dollars' worth of the former to the consultants, Professors A. or B., and ignores entirely the source of his ideas.

Shakespeare said, "There be land-rats and water-rats, land-thieves and water-thieves;" and a higher specialization of these would define those who steal your goods, and your reputation; but even he, myriad-minded as he was, had no conception of the thief of brains, the intellectual confidence operator, who boldly borrows your ideas to carry him through his difficulties, and hands you, in return, his bogus check, flattery and modest assurance.

This evil is serious. The practice deserves the denunciation and execration of all who respect themselves and their profession. There are physicians in this city who are daily subjected to this sort of extortion, either by personal application or by letter, from

men who, too ignorant or too indolent to form original opinions, and lacking the moral courage to acknowledge their own deficiencies to their patients, and to demand consultation—from which some other might derive professional and pecuniary benefit—meanly prefer to borrow the lion's skin wherewith to clothe the jackass. H.

The Philadelphia *Medical Times* thinks that the Commissioners of Charities and Correction in New York must have been influenced by the most weighty reasons in removing from their position on the staff of Bellevue Hospital, twelve of its nineteen members. We should think so, too, but would, in common with the majority of the profession of the whole world, be much gratified to know what those "weighty reasons" may be which are deemed sufficient to disqualify men like Hamilton, Flint, and their associates, to hold positions which, by the universal judgment of their own profession—best qualified to decide—they have held only to honor and adorn The time has arrived when members of the profession should decline any positions, dependent for their permanency and stability upon popular clamor, political machination or personal malice. If the staffs of all beneficiary institutions so governed should be vacated by their medical officers, there would then perhaps be a change in this regard. Just so long as physicians allow themselves to be used, just so long will they be abused. H.

We have received a circular from a manufacturing drug-house in one of the Eastern cities, in which the writer, inclosing a certificate, from an analytical chemist, of the purity of his preparation, modestly requests us to publish, in our "editorial columns," selected passages from the certificate, "with such comments as you "[we] may feel free to make, compressed in a dozen or more lines, "for which we will thank you, and be pleased to forward you any "quantity of samples of articles you may name on our list. "Very respectfully," etc.

We once remember to have found among some old papers a copy-book written by one of a past generation. in which to the oft-repeated maxim, "Modesty is a quality that adorns a woman," the school-boy, weary of reiteration, had appended, "and damns

a man." Surely the writer of the circular referred to must have arrived at the same conclusion. Should we comply with his request, we fear the editorial comments might not be such as would please him or increase the sale of his nostrums.

For such services, that is, the conversion of the JOURNAL into an advertising medium, we are to receive the thanks of the advertiser and as many samples of the advertised articles as we may desire. This we could not possibly afford. It is entirely too cheap. For a service altogether similar, we have been offered and refused five thousand dollars, and since then we have raised our price, which is equivalent to saying that the editorial pages of the JOURNAL are not for sale upon any terms. H.

For a long time past the amount of matter seeking publication in the columns of the JOURNAL has been in excess of its capacity. Almost every month valuable articles are returned to us by our publishers for want of space in which to print them, even after every expedient in the way of "solidification" has been resorted to to gain space. Some of this matter derives a large portion of its interest from its novelty, and would lose much, or all of its value, by delay. In order to accommodate still further our contributors, and its rapidly increasing subscription list, it has been decided to enlarge and otherwise improve the JOURNAL, from and after the close of the current year. This of course cannot be accomplished without increased expenditure of time, labor and money, for which there should necessarily be an adequate compensation. The subscription price of the JOURNAL will therefore be increased twenty-five per cent., that is, from three to four dollars per annum. We promise on our part a more than commensurate increase in the amount and value of its contents, and our publishers have given in advance, in the material, and in the typographical and mechanical excellence of the work, a guarantee of what they will do in the future. H.

Who is a Regular Physician?

This was the question to be decided upon definitely by the Medico-Historical Society during this month. Those present at the meetings are not likely to forget them very soon. They were reminded too strongly of the "*Parturiunt montes nascetur ridiculus*

mus;" and a very small mouse indeed was the final production of so much labor of so many eminent gentlemen! The grand idea conceived by the Society, to arrest the growing evil of quackery, has come into flesh—as a "Medical Register." This child will be pelted by a few, hated by some, neglected by many, and good for nothing after all. The reasons for it are obvious, if we look at the scale used for gauging the standing of a physician.

On August 20th, a printed list of physicians "who are in good and regular standing" was submitted to the Medico-Historical Society for final action. At the head of this list we read the following resolution:

"Any physician who shall by any advertisement, placard, handbill, circular, pamphlet, book, card, or any public means, announce himself or herself as possessing unusual or peculiar skill in any branch of medicine or surgery, or who shall assume any title not specially granted by a regularly chartered college, shall not be eligible to membership in this Society; and the name of such physician shall not be permitted to appear in the list of regular physicians published in the Chicago Medical Register; *Provided*, that a physician may be permitted to affix or connect with his or her name the title or designation of a specialty when he or she shall have ceased to do any practice not pertaining to such specialty, and not otherwise."—*Resolution adopted by the Chicago Medico-Historical Society, August 2*, 1874.

Now, if the especial publication of this resolution (which, by the way, does not contain anything that was not said in the old code of ethics) should mean anything, it was to set forth the most salient reasons for stamping a physician *regular* or *irregular*. And, indeed, "Has he a regular diploma?" and "Does he not advertise?" these were the two vital questions of the evening. If the candidate complied with these requirements (as construed by this arbitrary board), he passed as *regular*. He might violate the universal code of ethics of gentlemanly conduct; he might publicly slander eminent members of the profession; he might prescribe for a patient when he knew him to have another physician; he might occasionally be "interviewed" on sanitary questions, or on certain famous legs, and let the reporter tell the public all about the superior attainments of the learned doctor; he might have a card at the college building, announcing that the "Professor" treats certain diseases on certain days, gratis. All this is no advertising; it is done merely to enlighten the public. But woe for another who dared to enlighten the public, too! He was advertising, and ought to be stricken from the list. The definition of advertising is the most wonderful piece of rubber in existence; it can be stretched or contracted, just to suit the managers. For themselves they make liberal allowances, to let their lights shine before the public; but the *dis inferiorum gentium* shall rest on their "professional dignity," and let nobody know, through the printing press or otherwise, anything of their skill.

Now, has it ever degraded anybody to announce what he is

able to do, *as long as he can do it?* How, then, can a physician lower himself by announcing any peculiar skill, *as long as his actions prove him to possess it?* How should an honest advertisement injure the dignity of the profession? Because quacks fill the newspapers with boastful lies of wonderful cures, superior skill which they have not, therefore a regular physician must be silent. Because one man tells a lie, another man must not tell the truth. Is this logical reasoning? An educated doctor, who advertises honestly, is a quack no more than a quack who does not advertise is a regular physician.

You cannot eradicate quackery by such narrow-minded, unlogical restrictions as the code of ethics tries to force upon the regular physicians. And, because the Medical Register is founded on the dead letter of this code, it will be a failure; and, intended for distribution among physicians, it is a superfluous thing, because every physician, I trust, can soon enough find out for himself whether a certain doctor is an educated physician or a quack.

A "REGULAR."

Quarantine and the Public Health.

OFFICE OF THE SUPERVISING SURGEON,
U. S. MARINE-HOSPITAL SERVICE,
Treasury Department, September 9, 1874.

SIR:

I am instructed by the honorable the Secretary of the Treasury to submit for your consideration the accompanying copy of Circular No. 90, relating to the Duties of U. S. Officers with reference to Quarantine and the Public Health, and to solicit from you such information and suggestions touching the subject-matter thereof as may conduce to the greatest efficiency and harmony of action between State and municipal health authorities on the one hand, and the officers of the National Government upon the other.

To prevent—so far as his official action in this connection may prevent—the interruption of commercial intercourse, with the consequent stagnation of business and loss of revenue which uniformly result from the access of an epidemic of contagious disease, is, obviously, the object of the Circular of the honorable the Secretary, charged, as he is, with the protection and improvement of the financial and commercial interests of the country.

The intimate correlation of these interests to the sanitary interests of the people—with the conservation of which you are charged—renders direct and intelligent co-operation between the agents of these interests of the first importance. Whatever information and suggestions to this end it may be in your power to furnish, are therefore desired, and will be made the basis of specific instructions and action whenever practicable.

Copies of your health laws and regulations—State, municipal, and port; of instructions to port physicians, pilots, boarding officers, and others; of descrip-

tions of quarantine establishments, and of kindred published data, would be of immediate value, and may be forwarded direct to this office.

I have the honor to be, sir, your obedient servant,

JNO. M. WOODWORTH,
Supervising Surgeon U. S. M. H. S.

DUTIES OF UNITED STATES OFFICERS WITH REFERENCE TO QUARANTINE AND THE PUBLIC HEALTH.

1874—Department No. 90—Secretary's Office.

TREASURY DEPARTMENT, Sept. 8, 1874.

In the absence of uniformity in the regulations of quarantine upon the Atlantic and Gulf Coasts, it is desirable that the several officers specifically placed under the direction of the Treasury Department by the subjoined Section of The Revised Statutes of the United States, inform themselves fully as to the local health-laws, and the regulations based thereon and in force at their respective ports and stations, and strict compliance with such laws and prompt assistance in the enforcement of the same, when directed by competent authority, are hereby enjoined, in accordance with the provisions of the following:

"SECTION 4792. The quarantines and other restraints established by the health laws of any State, respecting any vessels arriving in, or bound to, any port or district thereof, shall be duly observed by

The officers of the customs revenue of the United States, by

The masters and crews of the several revenue-cutters, and by

The military officers commanding in any fort or station upon the sea-coast; and all such officers of the United States shall faithfully aid in the execution of such quarantines and health-laws, according to their respective powers, and within their respective precincts, and as they shall be directed from time to time by the Secretary of the Treasury." * * *

[*The Revised Statutes of the United States*, *p.* 890.]

Officers of the Customs Revenue are referred, in this connection, to Articles 294, 295, *General Regulations under the Customs and Navigation Laws of the United States*, 1874, and are requested to bring the same to the notice of the proper local health authorities, attracting attention especially to the second and third paragraphs of Article 294.

Officers in command of vessels of the Revenue Marine are instructed that Article 904 of said *Regulations* is held to include communication with infected vessels as well as ports; and, in order to render more efficient assistance to local authorities in the enforcement of quarantine laws, as therein directed, will take the necessary steps to advise such authorities of these instructions.

The co-operation of the military forces will be applied for only after exhausting the other powers and authorities herein mentioned; such application to be made to this Department, with a full statement of the facts for the information of the Honorable the Secretary of War.

Medical officers of the U. S. Marine-Hospital Service will govern their official action in consonance with this circular and the law as above cited; and will at all times assist as freely as practicable, not only other officers of the Government, but the quarantine authorities, in the protection of the public health against

the introduction of contagious diseases. In furtherance of this end, they are instructed to communicate to the Supervising Surgeon, from time to time, such information and suggestions as will enable that officer to frame needful regulations, and to take intelligent action in cases of emergency.

B. H. BRISTOW,
Secretary of the Treasury.

Chicago Mortality Report for August, 1874.

MORTALITY IN MONTH OF AUGUST, 1874.

Accident, by burns	4	Dysentery, typhoid	1
" by being crushed	2	Empyema	1
" by fall	5	Enteritis	37
" by drowning	13	Entero colitis	27
" by lightning	1	Epilepsy	3
" run over by wagon	1	Exhaustion	2
" by suffocation	1	Erysipelas	3
" by shooting	1	Fever, congestive	1
" by railroad	1	" intermittent	1
Abscess, hip	1	" puerperal	3
" lumbar	1	" remittent	4
" cerebral	1	" scarlet	11
Anæmia	1	" typhoid	28
Apoplexy	6	Gastritis	5
Arachnitis	3	Gastro enteritis	15
Asthma	2	Heart, disease of	7
Atelectasis pulmonum	3	" fatty degeneration of	3
Bowels, congestion of	2	" rupture of	1
" obstruction of	1	" enlargement of	1
Brain, congestion of	7	" valvular disease of	7
" inflammation of	14	Hemiplegia	1
" softening of	3	Hepatitis	3
Bronchitis	3	Hernia	2
" capillary	1	Hydrophobia	1
Cancer of breast	1	Hydrocephalus	16
" of bowels	1	Hydrothorax	1
" of liver	1	Inanition	39
" of stomach	5	Illeo enteritis	1
" of uterus	2	" colitis	1
Cholera infantum	406	Intemperance	2
" morbus	7	Intussusception	1
Consumption	43	Influenza	1
Convulsions	126	Injury at birth	1
" puerperal	2	Kidneys, Bright's disease of	3
Cyanosis	1	Liver, disease of	3
Cystitis	1	" cirrhosis of	1
Cynanche trachealis	1	" fatty degeneration of	1
Debility, general	13	" hypertrophy of	1
Delirium tremens	1	Lungs, congestion of	3
Diarrhœa	77	" hemorrhage of	1
" chronic	8	" paralysis of	1
Diphtheria	10	Leuchæmia	1
Dropsy, general	8	Malformation	1
Dysentery	19	Menstrual suppression	1

Mania, puerperal	1	Septicæmia	1
Measles	2	Small-Pox	1
Meningitis	20	Stomach, ulceration of	1
" cerebro-spinal	13	Stomatitis	1
" tubercular	5	Suicide, by drowning	1
Mouth, canker sore of	1	" by laudanum	1
Œdema pulmonum	1	" by hanging	1
Old age	13	Tabes mesenterica	23
Otitis	1	Teething	9
Paralysis	2	Teething and complications	7
Parotitis	1	Tetanus	1
Pericarditis	1	Trismus	1
Peritonitis	4	" nascentum	1
" puerperal	1	Tumor	1
Pneumonia	61	Uterus, hemorrhage of	2
Pleurisy	2	" degeneration of	1
Pyæmia	1	Vitality deficient	1
Rheumatism, inflammatory	1	Whooping cough	21
Sclerosis of spinal cord	1	Total	1,220
Premature births, 7; Still births, 58.		Total	65

COMPARISON.

Deaths in month of August, 1874	1,220
" " July, 1874	1,454
Decrease	234
Deaths in month of August, 1873	1,423
Decrease	203

AGES.

Under one year	567	Forty years to fifty	41
One year to two	309	Fifty " " sixty	37
Two years to three	24	Sixty " " seventy	26
Three " " four	14	Seventy " " eighty	18
Four " " five	7	Eighty " " ninety	6
Five " " ten	19	Ninety " " one hundred	
Ten " " twenty	29		
Twenty " " thirty	56	Total	1,220
Thirty " " forty	67		

Colored	11	Males	670
White	1,209	Females	550
Total	1,220	Total	1,220

Married, 197; Single, 1023. Total 1,220

NATIVITIES, AUGUST, 1874.

Belgium	2	Ireland	58
Bohemia	4	India	1
Canada	7	Italy	2
Native—Chicago	154	New Foundland	1
Foreign, "	725	Norway	11
United States, other parts	107	Nova Scotia	1
Denmark	6	Poland	4
England	7	Scotland	3
France	1	Sweden	12
Germany	103	Unknown	10
Holland	1	Total	1,220

Deaths daily, 39½. Mean temperature, 72°. Rain fall, 3.15 inches.

MORTALITY BY WARDS, AUGUST, 1874.

Wards.	No. Deaths.	Pop. in 1872.	Percentage.
1	4	398	one death in ...
2	8	2,174	" " ----
3	23	19,157	" " 833
4	21	16,832	" " 801
5	39	18,564	" " 476
6	125	31,371	" " 251
7	143	27,644	" " 193
8	120	30,253	" " 252
9	77	30,032	" " 390
10	24	16,624	" " 693
11	33	18,340	" " 556
12	42	20,876	" " 497
13	36	14,636	" " 406
14	42	15,892	" " 378
15	170	40,047	" " 235
16	69	19,099	" " 278
17	71	17,513	" " 246
18	66	19,977	" " 302
19	7	2,944	" " ----
20	18	5,023	" " ----
	1,138	Ratio of deaths to population in 1872, one death in 310.	

No. deaths in Wards	1,138	Home for Friendless	1
Accidents	34	Mercy Hospital	3
Bridewell	1	St. Joseph's "	7
County Hospital	11	St. Luke's "	3
Foundlings' Home	12	Suicides	3
Hospital Alexian Brothers	5		
Hospital for Women and Child'n	2	Total	1,220

Erratum.

On page 517 (September number), in the caption of Article II., before "Plym. S. Hayes, M.D.," read *Justin Hayes, M.D., and.*

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Original Communications.

ARTICLE I.—*Sex and Contagion.* By JAMES NEVINS HYDE, M.D., Chicago.

Pathological life, according to a recent writer,* is "consequent upon increased, diminished, or otherwise altered velocity† of molecular material, changing the arrangement of such material, interfering with the function which depends upon such arrangement, and, generally, inducing a greater or less modification of external appearance."

Without pausing to accept or reject the theory which such a definition involves, it may be applied in such a manner as to do no violence to generally received opinions.

There is an average condition of health, to the one side and the other of which, the pendulum of life swings from minute to min-

* McElroy. Cincinnati Lancet and Observer, August, 1874.

† The word "velocity" is, of course, intended to express, in its mechanical sense, the relation of motion to time. The rate of motion may be inappreciable, or appreciable only differential observations.

ute and from hour to hour, within certain prescribed physiological limits. In surpassing these limits, either to the right or left, the pendulum reaches an intermediate space, where the regions of health and disease are illy defined. A still wider swing encroaches upon the borders of that region which is allotted to pathology.

It will suffice for present purposes, if it be conceded that the greater deviation from this physiological average, is that which most nearly coincides with the pathological extreme. It should then follow that the study of the widest of these deviations must throw a flood of light upon pathogenesis.

The slightest of these variations are the transient phenomena of animal life, well worth the attention of the philosopher and the physician—the widest, offer them the surest basis upon which to found an explanation of malignant disease.

What are the widest of these deviations?

In the vegetable world, it is clear that plants sprout, flourish and die, for one special purpose — the production of a seed through which they may restore their kind. In a materialistic point of view merely, animals (including man) live to the same end—the perpetuation of their species. From infancy to puberty, the human male animal is sustained in order that he may finally secrete an organic cell, which shall possess the marvellous power of fecundating another and similar cell. This latter is provided by the female, who has survived for that main purpose nearly a quarter of a century. At the time of fruitful congress these cells are liberated,* endowed with a certain mode of motion, and there results a new being. Many individuals of a lower species, perish immediately after this supremest act of their short lives,† the liberated cells being extruded from their bodies, and placed in such media, or wrapped in such envelopes, that the new beings are therein fed and protected until sufficiently mature to feed and protect themselves. The lives of the human parents are, however, prolonged beyond this period, not only in order that they may be enabled to feed and protect the most helpless of offspring, but

* Consult Flint's Physiology of Man, Vol. 5, pp. 293–6, for evidence as to the probability that, apart from the menstrual molimen, the graafian follicle is ruptured during, or in consequence of, sexual intercourse.

† *E. G.*, the bombycidæ.

also that repeated acts of procreation may evoke other new organisms to life.

Now, a general survey of this cycle of events, might justify the conclusion that the maximum of that sum of velocities which we call life, would occur at the precise moment when the new organism was to be impressed with momentum. This, therefore, should be the date when those changed velocities originate, which have been supposed to be pathological.

However it may be with the parents, it is true that at this time the new life is endowed with all its hereditary tendencies to disease and death.

So far as regards the parents, however, the process of generation is not yet perfected. The female is obliged to furnish food and protection, first for the ovum and then for the fœtus, in a receptacle provided for that purpose, during a comparatively fixed interval, till the new being is capable of sustaining a separate existence. By means of a placenta and umbilical cord, the fœtus is attached to the mother, somewhat as a cherry is fastened to a fruit-bearing limb, and the maternal and fœtal bioplasts are thus commingled in continuous vascular channels.

The physiological velocities of the mother are thus again communicated to the child.

But there is a limit to this phase of life. At a determined instant, muscular energy intervenes, and plucks the mature fruit from the womb, in such a manner as if the stem of the cherry were torn from the limb, and the cherry itself torn from its stem. Here a physiological amputation is effected, and two physiological wounds are inflicted—one upon the matrix of the mother, and the other upon the umbilicus of the child.*

The maximum of their common velocity has been split. There are two resultants, in each of which must necessarily occur a change in the mode of motion.

Thereafter, if the natural process be completed, the child is

* These words are intended merely to call attention to the *physiological* phase of parturition, and not to imply assent to the doctrines of the localists, who look for the origin of puerperal diseases, to these lesions. Trousseau and Simpson, have each suggested the comparison of an amputation; but only to further suggest that puerperal diseases were similar to those resulting from surgical wounds.

simply transferred from one position to another—and the analogy to the fruit of the tree is no longer observed. The former, instead of being suspended from the uterus, becomes suspended from the breast, and continues to be there nourished by the maternal blood. But that blood is now filtered through a gland cell, and the motion of the leucocytes is transmuted into the motion of milk corpuscles.

In the process of this amputation, and of the production of these two wounds, the survival of the excised part is analogous to the growth of plant cuttings and buds, after their implantation in a new soil, or their grafting upon a foreign stock. It is here that the pendulum of life swings most nearly out of the limits of physiology into those of pathology. Here most readily does a normal mode of motion become abnormal. The effect upon the mother of this sudden cessation of the vascular current setting in to the fœtal veins, is profound for good or evil. There is a temporary pause before the current again floods beyond its usual limits into the milk-stream.

Health, and what we call disease, touch each other never so nearly as during this interval. Ever so slight an interference with function at this time—ever so insignificant a derangement of force—may confer upon the trembling bioplasts a species of motion which may prove potentially destructive in an incredibly short space of time. It may actually beget a contagious disease, capable of extending itself throughout a community of human beings with fatal energy; may induce a series of changes which will permanently impair the economy of the organism; may even so add its effect to that of the ordinarily benignant maladies as to impart to them somewhat of its own destructiveness and contagiousness.

It is conceivable that the maternal leucocytes may be so influenced by the mutations described above, that they become capable of preserving, for a longer or shorter time, their novel modes of motion—of transmitting still further modified activities to their descendants—of extending numerous diseases to the other sex and to many individuals: in short, of becoming primordial "disease germs."

Do contagious diseases originate in this manner? Did they ever originate in such a manner? Are contagious diseases modi-

fied by such a process? These are interesting and important questions, which cannot perhaps, in the present state of our knowledge, receive a categorical answer.

A critical examination of the literature of puerperal disease will suggest to the candid and unprejudiced student, that, in the multiplicity of conflicting dogmas, much that is founded upon fact, much that is of itself incontrovertibly true, is embodied in each. And yet each seems to just fall short of the expression of a fact or principle, which might serve as a clue to the pathology of the disease.

Dr. Fordyce Barker, in his valuable treatise upon this subject, recently published in this country,* states that more than twenty-thousand pages have been printed in connection with puerperal fever during the last twenty years. Subjoined is a brief analysis of his careful review of the various theories respecting this disorder, which represents modern authors. According to Prof. Barker, "it occurs in a peculiar state of the system, arising from a modified condition of the blood, induced by gestation; from lesions of organs resulting from compression, contusion and laceration by the process of parturition; from a retrograde metamorphosis of uterine tissue; from the special physiological changes of the internal surface of the uterus; and from the function of lactation."

The first theory considered is that of the *localists*, who would have it appear that the fever and general symptoms are secondary to, and consequent upon, inflammation of one or more of the tissues and organs concerned in the parturient process. This is, or was, the opinion of Professors Meigs and Alonzo Clark, of our own country; Beau, Piorry, Jacquemier, Cazeaux, Trousseau, Behier, Mattei, Pijot, and Berne, of France; and Dr. Robert Lee, of Great Britain.

The second theory is that of Cruveilhier, Sir James Simpson, Spiegelberg, of Breslau; and Professor Schroeder, of Erlangen. These authors regard puerperal fever as analogous to traumatic fever, and the severer forms of it as due to either septicæmia or to pyæmia.

According to a third school of writers (Prof. Jos. M. Smith, Guerard, Dubois, Depaul, Danyau, Lorain, Tarnier, Fox, Ken-

* The Puerperal Diseases. Fordyce Barker, M.D. New York. 1874.

nedy, McClintock, and others), puerperal fever is primarily a blood disease, developed, like other zymotic diseases, by epidemic, endemic and contagious causes, in which a modification of the general organism occurs, antecedent to the local lesions; consequently the local lesions are secondary: that is, they are the result of the disease, and not its cause. In short, according to them, it is an essential fever.

Dr. Tyler Smith, Dr. Robert Barnes, Professor Scanzoni, Braxton Hicks, Hall Davis, Graily Hewitt, W. S. Playfair, Wynn Williams, and Professor Leishman of Glasgow, hold to a fourth doctrine. They include under the term puerperal fever, all zymotic diseases, such as typhus and scarlet fevers, erysipelas, diphtheria, hospital gangrene, septicæmia, and all of the severe primary inflammations, when they occur in a puerperal woman. The idea of primary vitiation of the blood they do not reject, but term the disease a puerperal fever, whatever may be the nature of the specific primary poison.

Two authors, Professor Edward Martin, of Berlin, and Hervieux, of Paris, have adduced arguments in support of their several opinions, which differ from those given above. The former holds that "the diphtheritic process in the genitals of the lying-in-woman is the only essential element of puerperal fever." The latter believes that there is a plurality of puerperal diseases, as numerous as the local lesions, their type agreeing with the development of a puerperal poison—a sort of hospital miasm.

Prof. Barker's "confession of faith," after his investigation of the subject, is well worth reproduction. It is formulated as follows:

"1. There is a fever which is peculiar to puerperal women, and which is therefore appropriately named puerperal fever.

"2. The symptoms of this disease are essential, and are not the consequence of any local lesions, and it is as much a distinct disease as typhus, typhoid, or relapsing fever.

"3. It belongs to the class of zymotic diseases, and *results from some unknown blood changes.*

"4. *We are as ignorant of the specific cause of these changes* as we are of those which develop relapsing, scarlet, or any other of the essential fevers.

"5. The determining cause may be either epidemic influences, contagion, infection, or probably nosocomial malaria.

"6. Any of the local inflammations may occur in the puerperal woman without puerperal fever; and, on the other hand, puerperal fever may be so severe as to destroy life without sufficient local disease to account for the symptoms or explain the cause of death.

"7. The specific causes which develop the exanthemata, such as scarlatina or small-pox, may develop the specific disease with intense malignancy in the puerperal woman, but this does not transform the disease into a puerperal fever.

"8. Septicæmia may be developed in a puerperal woman either from autogenetic or heterogenetic infection, without puerperal fever, but this infection may also complicate puerperal fever."

The seventh and eighth of these propositions merely announce the non-identity of symptoms in puerperal and other disorders—a fact which is verified by daily experience. They by no means preclude the possibility of the existence of a causative or influential relation between zymotic diseases (with which puerperal fever is classed in the third proposition); and we are assured in the fourth proposition that the cause of these specific ailments is unknown.

Professor Leishman,* whose name has been already cited, says that "a series of facts of surpassing interest seem to show that the puerperal poison *may* be developed from other poisons of a similar kind, which has led some to conclude that the cause is less specific in its nature than a septic influence operating upon the peculiar conditions of the puerperal state." After illustrating this point by the citation of several cases, he proceeds to announce his belief, that the poison of the disease is associated with others of a similar nature. Attempts have indeed been made to prove that the poison of erysipelas is identical with that of puerperal fever, and although it is too much to assume that this has been made out, "*there can be no doubt that either affection is capable of being generated from the other.*"

The work of Dr. Minor, of Cincinnati, which has just issued from the press,† is exceedingly valuable as a means of esti-

* A System of Midwifery, including Diseases of Pregnancy and the Puerperal State. Wm. Leishman, M.D. Philadelphia. 1873. Page 656.

† Erysipelas and Child-Bed Fever. Thomas C. Minor, M.D. Cincinnati, 1874. Page 119.

mating the relative extent to which puerperal fever and erysipelas prevailed in the United States during the census year of 1870. On the score of taste, many objections might be made to the literary standard of this brochure, and yet it would be singular indeed, if from the mass of statistics which the author has compiled, some valuable conclusions could not be deduced. That one in particular, which the compiler has reached, will no doubt receive the assent of those who have the patience to follow in his footsteps.

He thinks that "in any place where erysipelas is found, there will be found puerperal fever," because:

"1. Erysipelas and puerperal fever seem to prevail together throughout the States;

"2. Any marked increase in any one locality, of one disease, seems to be accompanied by a corresponding increase of the other;

"3. Where histories of past epidemics of either disease are obtainable from any of the States, the seeming connection of the two diseases was noticed by physicians at the time of such epidemics, and remarked on; and

"4. For these reasons we are, I think, justified in concluding that there is an intimate connection existing between puerperal fever and erysipelas."

It has been aptly said, that where an unusually long list of remedies has been recommended in the treatment of a single disease, it is presumable, either that the latter has an inherent tendency to limitation after a given interval, or that no one of the remedial agents is capable of exercising upon it a specific curative effect. And it may be equally suspected in the multiplicity of opinions respecting the etiology of a single disease, either that the exact truth may have been partially and imperfectly recognized by each observer, or else that it has been totally concealed from all. And in the instance of puerperal fever such a suspicion is confirmed by the only portion of the verdict of the profession at large which seems to have been unanimously rendered, viz.: "*unknown blood changes.*"

The most modern of the doctrines relative to contagion, is that enunciated by the distinguished histologist, Dr. Beale, of London; and, although it may be objected to his teachings, that they are as

yet unsupported by sufficient evidence, yet, in the language of one of the ablest recent reviews of the germ theories of disease: "they are ingenious, plausible, and worthy of provisional acceptance till better are found."* Their application to the puerperal etiology is conspicuously satisfactory, though, so far as I am aware, Dr. Beale has not illustrated this point in his late essays.

According to the latter,† the active principle of all febrile contagious diseases is of animal origin, and to be found in the living matter of bioplasm. The bioplasts, or leucocytes, in this view, are the sole active agents in the phenomena of life: the repair of injury, waste, the repair of and the economical utilization of material. Once diverted in their active energy, they may become powerful for evil rather than potent for good. By degeneration they may retain the power of producing bioplasts like themselves; but these descendants are incapable of building up new and normal tissues, and merely form cell colonies which are capable of producing disease and the lesions of disease, and of retaining the power for an ill-defined period, even when situated external to the living animal.

Beale exhibits in his work, plates which represent the disease germs discovered by him in vaccine and variolous lymph, and in the secretions removed from animals infected with the cattle-plague. Many of these are viewed under an objective of one-fiftieth of an inch focal distance; and when these are contrasted with others representing the normal growth of cartilage and vascular tissue, inspected through the same media, the result is a most vivid realization of the activity of the blood-bioplasts in health and disease.

Dr. Hurd, though dissenting from the conclusions to which Beale has arrived, is yet willing to concede that they "accord with the doctrines of the modern German school of biology. All recognize the white corpuscles as the chief blood bioplasts possessing a wonderful constructive power, in health, and being the active agents in disease." The discoveries of Woodward regarding the migration of these leucocytes, have served but to stimulate and extend the development of these facts.

* On the Germ Theory of Disease. E. P. Hurd. Boston Medical and Surgical Journal, July 30, 1874.

† Disease Germs, Their Nature and Origin. Lionel S. Beale. London. 1872.

It is no objection to this belief, as urged by Dr. Hurd, that "all kinds of germinal matter look alike, and are undistinguishable by any characters which the microscope or chemistry can discover;" but rather one of the chief arguments by which to support its validity. Do not all germs resemble each other to a degree that has awakened the keenest activity in the minds of the advanced thinkers of our age? The germs which enfold the future organisms, whether of plants or animals, exhibit no feature which can serve as an indication of the future form, sex or even species of the individual. Huxley, much contradicted and more abused, is nevertheless an oracle of wisdom when he asserts that "one mass of non-nucleated protoplasm is undistinguishable from another. Why call one, plant; and the other, animal? The only reply is, that so far as form is concerned, plants and animals are not separable, and that in many cases it is a mere matter of convention whether we call a given organism an animal or a plant."*

What we choose to call health and disease do not differ from each other by as much as as do the kingdoms of animal and vegetable life. There is a unity of type and design, and a similarity of germ and organ, in animals and in plants; and the homology of fever is to be sought in the flush of the ruddy cheek of youth. Nay, more; since the stork is said to endure with impunity the venom of serpents, and the quail to thrive on a diet of hellebore,† it may be that, for the complete understanding of a strictly physiological process, it is requisite to solve some of the problems of pathology.

Dr. Beale figures in a manner most lucid to the eye the movement —amœbiform and slow—of the living bioplasts; but upon this essential evidence of their vitality, he does not lay as much weight as upon the proofs of their marvelious reproductiveness. Still, it is possible that upon the former, the entire argument respecting the *contagium vivum* will eventually be found to turn. Heat, light and electricity are now demonstrated to be merely modes of motion, interchangeable and intercurrent. At present the motion of the bioplast appears to be not only the condition of its vitality, but a measure of its reproductiveness. A change once effected

* Fortnightly Review, February, 1869.

† Sir Thomas Browne. Vol. 3, p. 358.

in the mode of that motion, must of necessity exert an influence upon the direction in which that energy is exerted. The forces which produce the foot-pound and the units of heat and light, are not more separate than those which result in the bioplasm of cartilage and the neoplasm of cancer. It is no more difficult to believe that a blood corpuscle can store up the momentum which will eventuate in small-pox, than to assent to the fact that the swing of a sunbeam centuries ago, is released from a fragment of carbon in the impulse which propels the piston of an engine to-day.

The trend of the strata exposed by modern research is altogether in one direction—unity of design, uniformity of law and economy of force and material. Man is born of the same energy which produces the bud of the torula, and dies after the manner of diseased wheat. We say that visceral ectrophy in a human being is anomalous, but plants exhibit this phenomenon when they have arrived at the maturity of normal development. The tulip exhibits the phases of a perfect life when its digestive organs are outspread to the sun and air; and it is not ashamed to expose to the eye of the world all its members and processes of generation. Even the so-called "monstrosities" are beautiful in their display of order in perversion. That which is most normal "is often an expression of the widest diversity from type; and even the brain has been called a parasite of the complex animal organism."*

The correlation of the vital and physical forces is no longer a question, but a demonstrated fact of science. Barker, Le Conte, Meyer,† and others, have ably shown that nerve force, muscle force and thought force are transmuted potential energies, measurable by the amount of heat stored up in the food which is digested. But here they have stopped. They have contented themselves with studying the complex velocities of whole muscles, whole brains and whole bundles of nerves, in the healthy animal. It is the province of medicine to study the modified velocities

* Nouv. Dict. de Med. et de Chir. Article, "Contagion."

† Barker. Correlation of Vital and Physical Forces. New Haven. 1871. Le Conte. Correlation of Vital and Physical Forces. American Journal o Science, Vol. II, No. xxviii, p. 305. November, 1859. Meyer. On Organic Motion and Nutrition. Extract from Essay in "Tyndall on Heat." New York. 1867.

which generate disease not only in gross textures, but in the bioplast and its brood of pestilential germs.

If, then, the leucocytes of the blood are so altered in the abnormal puerperal state that they actually beget a contagious disease—and if it is true, as many have asserted, that the latter is intimately associated with other, if not all other, contagious diseases, then perhaps the creed of some of the fathers of medicine may not be, after all, so very far astray. For example, Alphonse Le Roi believed that most of the causes which produce degeneration in the human family originate with the female. "With a view more effectually to follow the labyrinth of the human economy," he wrote, "it appears necessary to study that of the female: in this way, we may perceive more frequently and more certainly than in that of the male, the course and progress of disease. Moreover, the degeneration of the species always begins in nature with the woman." And even Boerhaave was not far from the truth when he wrote in 1690: "Several diseases owe their Birth to no other Cause than Pregnancy, whereof some do proceed from the menstruous Blood being hindered to separate because of the Closeness of the Womb, and the Fœtus not being yet able to consume the Quantity conveyed thither for its Nourishment."*

Because such a statement might be paraphrased, in the language of modern science, as follows:

"Several diseases originate exclusively from the puerperal state, and some, from the abnormal energy of the bioplasts of that blood which, in the non-pregnant condition, would have become menstruous. But the retention of the latter during pregnancy, enables them to communicate their velocities to the bioplasts of the fœtus, and an excess or diversion of these velocities, beyond what is requisite for the production of physiological effects, generates disease."

A curious and interesting illustration of the influence exerted by the puerperal condition upon contagious disease, is to be found in the history of the attempts to secure immunity from variola by the process of inoculation and vaccination.

The connection between variola and vaccinia is not yet clearly

* Translation of the Aphorisms of Boerhaave. The title-page of this venerable work is wanting.

established. Whether the sheep, the horse, the cow, or man, first exhibited the symptoms of the parent disease, and which race was first to contract it from the earliest infected individual, is a problem the difficulty of whose solution is self-apparent. Yet it must be admitted that human variola, transmitted through the system of the cow, undergoes a remarkable transformation.

Now it is not a little singular that most of the observers and more of the experimenters in this interesting field, have been obliged to confine themselves not only to the female of the bovine race, but even to the lactiferous female. Ceely, in the *Transactions of the Provincial Medical and Surgical Journal* (vol. 8, p. 299) speaks on this subject as follows:

"It is considered that the disease (vaccinia) is peculiar to the milch cow—that it occurs primarily while the animal is in that condition—and that it is casually propagated to others by the hands of milkers. But, considering the general mildness of the disease, the fact of its being at times entirely overlooked, and that its topical severity depends almost wholly on the rude tractions of the milkers, it would perhaps be going too far to assert its invariable and exclusive origin under the circumstances just mentioned: yet I have frequently witnessed the fact that sturks, dry heifers, dry cows and milch cows milked by other hands, grazing in the same pastures, feeding in the same sheds and in continuous stalls, *remain exempt* from the disease."

Seaton, Medical Inspector to the Privy Council, says, in regard to the same subject, "it particularly attacks milch cows; indeed, as a spontaneous disease it occurs *almost, if not quite, exclusively*, when the animal is in that condition. Young cows and milch heifers appear to be more subject to it than older cows." *

In the numerous attempts to produce vaccinia by variolous inoculation of these animals, the same general influence of the puerperal state is clearly evident. Dr. Seaton reports that all attempts to infect cows directly by repetition of Sunderland's experiments—as in England, by Mr. Ceely;† in India, by Mr. Macpherson, and by Mr. Lamb;‡ and on the Continent, at the veterinary schools in Alfort, Berlin, Weimar, Bergen, Dresden,

* Hand-Book of Vaccination. Ed. C. Seaton, M.D. London. 1868.

† Op. cit.

‡ Transactions Med. and Phys. Society of Calcutta. Vols. 6 and 8.

Kasan, Utrecht and Stockholm, were unsuccessful. For although both at Utrecht and Stockholm, a pustular or vesicular eruption appeared on those parts of the animals experimented upon, which were in immediate contact with the infected coverings, this was evidently of a local non-specific character.

But in 1836, Dr. Thiele, of Kasan, after several fruitless attempts to infect cows by inoculation of the variolous virus, succeeded finally, on several occasions, and produced a virus which was subsequently employed in the vaccination of more than three millions of individuals, and which survived seventy-five transmissions. This success he attributed to the precautions taken in the selection of animals for his experiments; and his previous failures he attributed to neglect of these precautions. I quote his own words (the italics are mine): "Cows should be selected from four to six years old, *which have recently calved;* the inoculation should be performed at the base of the udder."

It is a matter of wonder that so many able experimenters have neglected to observe the coincidence of spontaneous vaccinia and the puerperal state, and to avail themselves of a knowledge of this fact in producing variolation. After a somewhat careful examination of authorities, I am unable to refer to any records of spontaneous vaccinia in bulls; and but a few in which oxen were affected with the disease.

"Grease"—which has in numerous instances produced vaccinia in cows, and even typical vesicles in the human being which subsequently secured immunity from variola—seems to occur indifferently in geldings and mares. When the latter are infected, not only the pelvic extremities exhibit cutaneous lesions, but also the vulva and teats. It is, however, quite probable that sufficient observations have not been made to establish, definitely, the history of this disease, since it is apparent in the descriptions recorded, that grease has been confounded with other non-contagious disorders. Even so good an authority as Forester, declares that "the disease is caused by neglect, the horse being allowed to stand in the stable with cold and wet heels,"* a condition which, though favorable to the production of inflammatory disorders, could hardly, of itself, be capable of begetting a contagious disease.

Gamgee, in his exhaustive work on the Cattle Plague, alludes to

* On the Horse. Vol. II, p. 492. New York. 1857.

the influence of parturition upon the extension of that disease. He states that pregnant animals are readily infected, but not so readily as at the period of calving. In these cases there is more or less redness of the visible mucous membranes, which is especially noticeable in the vagina of cows; and the characteristic eruption invades the mammæ, the inside of the thighs, the back and the loins.

A discussion of the interdependence of the puerperal and all contagious diseases, would exceed the scope of this article. But that such a relation exists—intimate, if not essential and causative—is tolerably clear from the evidence. The eruptive fevers, phthisis (which is still considered contagious by Villemin and Guerin) and syphilis, are admitted to be grave complications of pregnancy, but unlikely to occur—syphilis excepted—until after its completion. The protection which is hence assumed to be conferred by the gravidity of the uterus, has been attributed to extraordinary activity on the part of the vital forces, which are presumed to be too intently engaged upon the building up of a new being, to exert themselves elsewhere, or in other directions.

But it is probable that, if such immunity exists, it depends upon some other causes; for the non-contagious diseases do not find in the pregnant female any obstacle to their inception and continued progress. Non-specific eruptions, which are unaccompanied by fever, pursue an uninterrupted career during the continuance of pregnancy, and many such are not amenable to treatment till delivery has occurred, when they tend to a spontaneous disappearance. This is precisely the reverse of what occurs in the eruptive fevers, which are more easily contracted after delivery, than before. Cazeaux, on the authority of Serres, reports that this is true of scarlatina.*

If the conclusions here suggested are sustained and accepted, it will not be extravagant to regard the condition of the woman who is pregnant as analogous to that of her husband who has the small-pox. By contact (or contagion) she has been placed in a physiological state, through the medium of a germ, a ferment, or a virus—call it what we may. In an etymological sense, it were wiser to call it a virus, for the vis is that which constitutes the

* Traite theorique et pratique de l'art des Accouchements. P. Cazeaux. Paris. 1867. Page 438.

essential element of all venom and virility. His disease was contracted in a similar way.

She forthwith proceeds to elaborate a new organism by the process of cell multiplication and segmentation; just as he who is infected, develops his poison. But that which she elaborates is not the ciliated cell which she received from her husband. It is that which she herself secreted from her ovary—fructified, it is true, by the former, but yet a scion of her own blood stock.* That which he multiplies, is the leucocyte of his own blood, fructified, changed in function, velocity, or reproductiveness, by the cell with which he was infected.

She develops her cells with all the activity of maternity, in the great emunctory of the uterus—he, his, in the smaller emunctories of the muco-cutaneous system.

His blood is profoundly affected, and there results a febrile movement: so is hers, and the mammary, renal and other glands exhibit their sympathies.

When the fruit of her womb is mature, she brings it violently into the world: in like manner his pustule bursts and discharges its contents. In the one case, and in the other, the microscope can discover nothing in these products but masses of growing cells.

The perfect product of her womb is a thing of life: the perfected product of his pustule is living matter.

Each process leaves in the human body an indelible record of its history.

The greatest fatality in each, occurs after the expulsion of the organized mass.

But after this expulsion, these cell masses are not wholly abandoned to external influences. The child, for a further space of time, is fed upon its mother's milk; the scab, for a short period, is fed by its imperfect connection with the subjacent tissues.

The contents of the pustule can, after incubation, excite in an unprotected individual, the entire chain of phenomena which make up the disease. The product of the womb can also, after its arrival at puberty, impregnate, or be impregnated by, another, and thus perpetuate itself.

* Martin Barry has seen the spermatozoid actually find its way into the ovum, through a minute perture, in the Aascaris Mystax. See Bennett's Text Book of Physiology. Philadelphia. 1873. Page 48.

These comparisons may appear fanciful to some, but if they have not a substratum of fact, the revelations of the last decade are as untrustworthy as the utterances of the Delphic oracle.

There are many other interesting questions which the consideration of this subject suggests. Such are the relations between puerperal disease and the septicæmic affections of the new-born child — the influence of certain morbid mental and physical states of the mother upon the milk which she secretes, and, in especial, the study of the toxicology of milk. This secretion is so closely connected with the puerperal state, that the interest which attaches to it, is largely derived from that fact. The bacteria which the microscope has detected in this fluid,* have never sufficed to sustain the theories which would account for its morbific agency. It is more than probable that whatever power for good or evil it possesses, it owes rather to the leucocytes of the blood which are its legitimate ancestors, than to any microscopic germs of foreign extraction.

A great French cuisinier† has inscribed upon one of the first pages of his treatise on his art, the following words: "A cook should be above prejudices." What a lesson is there for the scientist! We have an authentic record of articulate speech from only one dumb animal, and that was not when he found himself confronted by an angel of truth. It was only when a soi-disant prophet, blinded by his prejudices, attempted to force the animal against the obstacle in his path, and bruised himself in the effort.‡

Perhaps we shall, in our day, read an explanatory answer to the question propounded to himself by a thoughtful physician, in the retirement of his study upon the Via Sacra of ancient Rome:

"*An quis varioiis et peste simul laboret?*"

* Transactions of the Royal Microscopical Society of Great Britain. Vols. 3 and 5.

† Pierre Blot—who recently died.

‡ Numbers xxii, 28.

ARTICLE II. — *Koumiss, and its Use in Medicine.* By OSCAR C. DE WOLF, M.D., Chicago.

During the years 1858, '59, '60, '61, while a student of medicine in England, and on the Continent, I heard occasionally of the wonderful effect of a preparation of fermented milk when taken largely as a dietetic remedy. I recall particularly a clinical lecture by the immortal Trousseau, at the Hotel-Dieu in 1860, in which he confirmed the statement of a German investigator that "it possessed the highest power of nutrition, and was one of the most decided enemies of emaciation we could produce." It does not appear to have received the attention in this country which it merits, and while enthusiasm may (after the fashion of our people) misrepresent it as a cure-all, it nevertheless has a legitimate place in medicine which a more extended acquaintance and use will develop and define.

I have been able to gather much that has been written in Germany and England on the subject, and I venture to collate such facts in regard to its history, and use, as will interest the profession and command their attention. I have consulted the following works, and some of them are now before me. Grieve, in Edinb. Transact. 1787, pp. 278; the London Med. Journal, 1789; Ucke on the Climate and Diseases of Samara, 1863; The Result of Eight Years' Residence in Orenburg, 1843–51, by Dr. P. DeMaydell, Medical Inspector for the Government of Oriel, Russia; Balneologische Notizen uber die Kurmittel des Bades Reinerz, by Dr. Herrman Biegel, physician to the Metropolitan Free Hospital, London, 1863; Koumiss, in the Treatment of Phthisis, by Dr. Jagielski, London, 1872; Der Kumys und edessen Anwendung in der Therapie, by Dr. J. Brzezinski, Berlin, 1872; Der Kumys Seine Physiologischen und Therapeutischen Wirkungen, by Dr. E. Stahlberg, St. Petersburg, 1869; Therapeutical Properties of Koumiss, translated from Le Progress Medical, by Fred. J. Huse, M.D., in Medical Examiner, (Chicago) Oct. 1, 1874. Further acknowledgment for whatever I may use from the above authors is unnecessary.

Dr. Grieve says, "it may appear surprising that one of the most important productions of milk should still remain in a great measure unknown to the most enlightened portions of Europe.

This production, which is procured by fermentation from mare's milk, is a vinous liquor, and it was scarcely to be expected that after it had escaped the observation of men the most skilled in chemistry, it should be taught us by a horde of Tartars, whose rank in the social scale is not above that of barbarians."

Koumiss as prepared from mare's milk, has its native country in those regions of the Russian Empire in Asia, between the Don, Volga, and Sea of Aral, consisting of the Steppes, inhabited by the Tartar tribes, especially in the country of Orenburg, which, according to Von Humbolt, belongs to the so-called "Continental climate," where the summer is exceedingly dry, and the heat very great, with scarcely any rain, whereas in winter, continuous frosts are prevalent. The inhabitants are a nomadic people, generally of a strong and vigorous habit of body, with great muscular development and well shaped thorax. Their food is very simple; they live exclusively on meat, especially the flesh of the sheep and horse, and in winter and summer their favorite beverage is koumiss. In order to obtain milk in sufficient quantity the Tartars are accustomed to separate the foal from the mare during the day, allowing it to suck only at night, and the milk is taken from the mare about five times a day. During the winter when mare's milk fails them they use the milk of the cow, which is also susceptible of the vinous fermentation. The preparation from cow's milk they call arjen or arjan, but koumiss is the Tartar name for the fermented mare's milk. They distil a spirit, highly intoxicant, from both koumiss and arjan, which they call arika, and which they keep all the year round in stock.

The mare's milk is kept in a bag made of horse's hide undressed, which by smoking acquires a degree of hardness. Its shape is conical, somewhat triangular, from being composed of three different pieces set in a circular base of the same material. The sutures, which are made with tendon, are secured by a covering on the outside with a doubling of the same skin, closely fastened. These bags are used both for the preparation and transportation of koumiss, and have a dirty appearance and disagreeable smell. The best koumiss, according to Dr. Stahlburg, is made near Orenburg, while that in the departments of Stauropol, Taurien, and on the Caucasus, is not so well prepared; it has an unpleasant efflu-

vium, as even the best preparations from mare's milk always have more or less, but to which patients soon grow accustomed.

To appreciate the chemical changes which milk undergoes in the process of fermentation, we must fix our attention on the decomposition of milk sugar into alcohol, carbonic acid, and lactic acid.

Milk sugar is said to be composed of "C^{12} H^{22} O^{11} + H^2 O; by the addition of a ferment it decomposes into C O^2, and alcohol C^2 H^6. In consequence of this decomposition the sugar yields two bodies: 1. Basic alcohol; 2. Carbonic and lactic acids. While the milk sugar alone is not fermentable, it is capable of conversion into a grape sugar which is fermentable." (Lebert.)

The principal ingredients of milk are casein, fat, milk sugar, mineral salts, especially phosphate of lime, chlorate of potass, magnesia, some iron, etc., and water. The proportion in which these ingredients occur in milk is not only a variable one in man and in different animals, but varies also, and in certain cases very much, in one and the same individual.

According to Dr. With, woman's milk is proportionately poor in cheesy matter, but rich in milk sugar, and fat. Mare's milk is still poorer in cheese, very poor in fat, but extremely rich in sugar. Goat's milk, and that of the cow, are very similar in their proportion of casein, fat, and milk sugar.

The following table is interesting as a matter of reference:

In 100 Parts of Milk.	Woman's	Cow's.	Goat's.	Sheep's.	Ass's.	Mare's.
Water	88.058	85.705	86.358	82.089	91.024	82.837
Solid Matters	11.942	14.294	13.642	10.011	8.976	17.163
Casein	3.424	4.828	3.500	5.342	2.018	1.641
Albumen	.....	0.546	1.209			
Butter	2.666	4.305	4.357	5.800	1.256	6.572
Milk Sugar	4.304	4.037	4.004	4.168	5.702	8.650
Salts	0.138	0.548	0.622	0.681		

"The milk of all animals is converted into koumiss by one and the same method," but it will be seen from the above that the milk of the mare, so rich in sugar, will furnish a larger per cent. of alcohol; yet the cow's milk may be approximated by the addition of four per cent. of sugar and two per cent. of fat.

In considering the physiological effect of koumiss, we may suppose that in addition to the well known nutritious value of animal

milk, there are certain accessory agents produced by the fermentative process, to wit: Alcohol, carbonic and lactic acids; and, still further, that the casein, particularly of the cow's milk, when used, has undergone such an important modification that it is dispersed through the fluid in loose floculent masses, "which develop bubbles so long as they are moist, and which dissolve on the tongue like snow."

Three grades of koumiss are manufactured in Germany and Russia, known as A, B and C. "Full koumiss (A) is made from the cow's milk, preserving the whole of the cheesy matter. Medium koumiss (B) is the artificial representant, as nearly as possible, of that made from the mare's milk, by withdrawing the proper quantity of casein and fat, and the addition of such a per cent. of sugar of milk as will approximate the cow's milk to that of the mare. In whey koumiss (C) the casein is entirely removed." By proper manipulation, it is claimed that "the milk of the cow is an equally good, if not better, raw material as that of the mare," and it certainly affords a facility for varying the composition of the product, that the lighter milk of the mare does not possess. From the commencement of fermentation to its completion, that is, until the sugar has been entirely broken up into alcohol, each grade passes through three degrees of fermentation, and when once commenced it will continue, no matter what the temperature, but in passing through these changes it retains all of its general and remedial properties. "In all cases it is a milk-like fluid. In its fresh (No. 1) state it is a still liquor, and has an agreeable, sweetly-acidulous taste. As it approaches No. 2 it becomes more acidulous, and assumes a sparkling character. In No. 3 the sweet taste is replaced wholly by the acidulous, slightly bitter, and it not only sparkles, but rushes from the bottle with great force."

Passing now to the therapeutical uses of "milk wine," it would be useless to review the great mass of clinical testimony presented by the authors to whom I have referred.

The public at large in Russia is accustomed to regard koumiss as a specific against tuberculous affections, and Dr. Stahlburg declares, that "if a remedy against phthisis exists in the world, it *must be* koumiss. Seeland (Medicin der Gegenwart, January, 1862) compares the effect of koumiss to that which is produced by

transfusion, and claims that medicine is in possession of no blood restorer to be compared to it.

Allowing the widest margin for the enthusiasm of the German and French investigators, the legitimate and rational indications for its use are apparent to the practical physician. It cannot be a specific in phthisis, but it may be of immense service in counteracting the disturbed and degraded nutritive changes which predispose to it, while it certainly supplies a food peculiarly adapted to conditions of exhausted vitality, emaciation from any cause, and the gastro-intestinal affections of children. In brief, it must be accorded a high place in the series of plastic nourishments.

My own experience in its use has been very limited, yet small as it is, has been interesting, and is, I trust, worthy of brief notice in connection with this paper.

After many trials and much patient labor, Mr. Arend, druggist, 521 West Madison street, succeeded in producing a koumiss which, so far as I can judge, is a good article. It answers, in every particular, to the description given by those who are expert in its manufacture and use.

While he was experimenting, and not yet satisfied with his product, I was called, on the evening of July 25, to visit a child twenty-two months old, two days sick with cholera infantum. Neither food, medicine, nor ice had been retained in the stomach a moment for eight hours; the dejections were frequent and characteristic; surface cool; face pinched; and the fearful screech every two or three minutes was indicative enough of the complete nervous exhaustion and approaching death of the patient.

I had veryrecently read Dr. Jagielski's paper on koumiss, read before the London Medical Society, in Feb., 1874. In it he dwells much on the magical effect of koumiss, highly charged as it is with carbonic acid, in allaying nausea, calming gastric irritation, and increasing the energy of the heart's impulse. I found a beer bottle of full (A) koumiss at Mr. Arend's, five days old, and returned to my patient.

In opening the bottle, two-thirds of it escaped, but enough was secured to make a beginning, and the child took two tablespoonsfull, a greater part of which was retained. A second bottle was procured. Some of the casein, which had separated in floculent masses, was taken out, and the child fed freely with the remaining

liquor. She took no other food, fluid, or medicine. In three hours she slept, the surface became warm, discharges gradually ceased, and she steadily convalesced.

I frankly confess my belief, that I had no other than this accidental resource which would have successfully met the emergency.

Mr. F. H. L., aet. 26, clerk in banking house in this city, of a consumptive family, consulted me in March last. I could detect no local pulmonary trouble, yet his general condition was far from satisfactory. I advised him to eat fatty food, dress warmly in flannels, and change his occupation. From time to time he reported himself as improving, and so it seemed. On July 27, while at his desk, he had an attack of violent hæmoptysis, which was repeated in three days. I only report his progress and so much of his case as is of interest in connection with the present subject. The lower two-thirds of right lung became solid; not the slightest cough nor expectoration; stomach irritable; would take neither milk, champagne, nor alcoholic stimuli of any kind; slept badly; pulse, 115–30; heat of surface, 101°–3°; emaciation rapidly progressive.

Towards the last of August he became so feeble that he could only be moved from side to side of the bed with much care, and always in a horizontal position. His family were summoned from Connecticut, and I had no thought of his living a week. Prof. Henry M. Lyman, who had seen the patient twice during his illness, was again desired to visit him, and confirmed my opinion of a probable fatal result soon; that he could not be moved, etc. The koumiss was now in successful manufacture at Mr. Arend's, and on August 28th he commenced its use.

He had great disgust of milk, could never take a tablespoonful without pain following it, and objected strongly to the koumiss. He soon learned to love it, however, and took, for ten days, about one quart per day. His sleep returned: indeed, his nurse and friends were fearful he was sleeping too much, and would awaken him; pulse slowed to 100 per minute; temperature fell to 99°; and his strength was so far recuperated that, on September 10th, he was ready to undertake a journey of fifteen hundred miles, which he accomplished comfortably. Since deprived of his koumiss, he is again sinking, and in a letter from his father, dated September 23d, he informs me: "Frank has gone back about

where he was before he commenced the koumiss." While the case would have progressed to a fatal issue under any circumstances, yet the markedly restorative influence of koumiss was well exhibited, and were my paper not already too long, it would be instructive to consider the "manner and the method" of its help to my patient.

In a case of carcinoma of the rectum, in which the patient had become greatly exhausted from the profuse discharge, and an irritability of the stomach, which for days refused all nourishment, the effect of koumiss in arresting vomiting, producing sleep, and temporarily reviving the strength, was extremely gratifying. Prof. J. Adams Allen saw this lady, in consultation.

Mr. B., æt. 31 years, bookkeeper, has suffered much from dyspepsia and nervous depression for the past two years, and for three months, last spring, was not able to occupy his desk. Food distressed him; bowels distended and sore; considerable emaciation. In July he visited the Atlantic coast to obtain benefit from the sea air. Not much improvement. Commenced taking koumiss last of August, and in one month had gained in weight seven pounds; called himself well. Early in October he returned to his ordinary diet, and his dyspeptic troubles recurred. He is now taking koumiss, with the same benefit as at first.

The quantity of koumiss advisable to take in commencing its use, should not exceed one champagne bottle daily, for an adult, and even that amount sometimes produces a slight febrile reaction. If headache occurs, it should be suspended for a day or two; but in a short time a toleration is generally established, and the patient soon discovers how much he can take, and then he may live entirely upon koumiss, or, when the stomach will tolerate other food, it may be added. It does not interfere with any other course of treatment. The secretion of urine is generally much increased. When a tendency to constipation exists, the fresh product (No. 1 or 2) should be used, but if diarrhœa is troublesome, an older sort should be taken. A piece of stale bread or cracker, eaten immediately after drinking, will relieve the fullness of stomach sometimes complained of.

The desire for sleep generally experienced after drinking koumiss, should be regarded as beneficial, and should not be interfered with.

ARTICLE III.—*A Case of Injury of the Head.* By GEORGE J. MONROE, M.D., Leland, LaSalle Co., Ill.

Mr. Iver Jacobson was loading the horse power of a threshing machine on the evening of October 1, 1872, by rolling it up with a roller through which a crow bar was passed. By some means the bar slipped from his hands, when it flew back, having the whole weight of the horse power upon it. The bar struck him upon the top of the head, at once knocking him senseless. I was sent for, and found him, in about one hour after the accident, in a comatose condition, with heavy labored breathing. Pulse, 30; respiration, 7; feet and legs cold; eyes and face swollen. Found a flesh wound on the crown of the head about five inches long, running in the antero posterior direction. Found a fracture extending from the occipital bone to the frontal, and down the frontal to the orbit. About midway from the occipital to the frontal, the parietal bone was fractured on the left side down to the temporal bone, and several pieces loosened. The frontal was also fractured on the left side from the middle fracture, commencing at its contact with the parietal, to the external superior angle of the eye. I shaved the head near the injury, and removed several large pieces of detached bone. Brain matter, I should say, to the extent of two ounces exsuded. Ordered ice to the scalp, jugs of warm water to extremities, as well as about the body. Told his friends that he would die, but if alive in the morning, to notify me; also, to send for Dr. Vosburgh, of Earl, to meet me in consultation. Was informed in the morning he was still alive, and that Dr. Vosburgh had been sent for. Took Dr. Hinkley from our town, and reached the patient about nine A. M. Dr. Vosburgh soon arrived. Found the following conditions: pulse, 60; respiration, 15; extremities warm; reaction taking place; face very much swollen; had passed fœces involuntarily. Drew the urine with catheter. Brain matter still exsuding. The left anterior quarter of the parietal bone was depressed below the balance of the bone at least one-fourth of an inch. Inserted a spatula under it, and pried over the right parietal bone, which means was successful in elevating the bone to its proper position. Instead of it falling back, as I anticipated it would, on removal of the spatula, it remained as elevated, and never has become again depressed.

Not deeming any further interference necessary, expecting our patient to die, we ordered ice to be continued to the head, and heat to the extremities. As he could not swallow, we ordered injections of beef tea and quinine per rectum.

Oct. 3. Head very hot; pulse, one hundred and ten; respiration, thirty-five. Had not voluntarily moved any portion of the body. Continue treatment.

Oct. 4. Found patient in nearly same condition. His wife said that some liquid she had put in his mouth, after remaining some time, had been swallowed. I tried the experiment, and after retaining liquid which I put in his mouth some three minutes, he swallowed it.

The symptoms remained very much the same for the next seven days, with the exception of the swallowing, which grew better and better each day, until about the twelfth, when he would swallow any liquid which was put in his mouth. On the thirteenth, he opened his eyes, but I do not think he could see. Along about this time he passed his urine without assistance. He moved his hands and feet some; made a great many motions with his hands, as though he wanted something. I concluded he had partial control over the rectum, and his returning sensation told him his bowels wanted to be emptied. His wife put cloths under him, and during my visit he had an evacuation. After this, when he made those peculiar signs, his wife would put cloths under him, and his bowels would move. I think sight partially returned about the sixteenth. On putting a piece of cracker into his mouth at this date, he attempted to chew it. The fever had entirely subsided on the twentieth; the external wound nearly healed. A bunch about the size of a walnut had formed where union had taken place in the scalp. On examination, I concluded I felt fluctuation. I struck my lancet into this swelling, when there was a profuse dicharge of purulent matter. In about an hour from this time, his wife, on going back into the room, from which she had been a few minutes absent, found him sitting up in bed and looking bewildered. He asked, after looking at her awhile, where he was. She told him. He then asked if they had gone with the separator. She told him, yes. He then asked where the horse power was. She told him it was gone too. This was apparently a poser to him, for he said he thought he was helping to load it.

He finally put his hand to his head, and found it sore. He asked how that happened. His wife then told him all about the accident. He could not comprehend that he had been lying there twenty-one days. It was all lost time to him, and something of a mystery. I found him rational on my next visit, but with a difficulty of everything appearing double when looked at with the left eye. He continued to improve from day to day. The difficulty with vision gradually subsided, and was all gone in about six months. He frequently tells me that three weeks of his life was a blank. The wonder is, that with such an extensive fracture of the skull, with such an extent of brain injury and loss of brain matter, he recovered at all; and still more wonderful, that he should recover without any impairment of his intellectual faculties.

Reports of Societies.

Chicago Society of Physicians and Surgeons. *Transactions at Special Meeting, September* 2, 1874. Reported by RALPH E. STARKWEATHER, M.D.

The President, Dr. John Bartlett, in the Chair. The meeting had been called, by request of several members, in order that the Society might hear Dr. Ely McClellan, Assistant Surgeon of the U. S. Army, speak informally upon the cholera epidemic of 1873. He said that in 1873 Pelikan and other Russian sanitarians startled the medical world by declaring that cholera had become endemic in Russia. Recently, Dr. Radcliffe, at a meeting of the British Medical Association, demonstrated the error of this conclusion. He then pointed out upon the map the two lines of travel from India to Europe, the North Persian, the route by way of Jelalabad, Herut, Meschid to Asterabad upon the Caspian sea, across to Baku, thence overland to Tiflis and to Poti, upon the Black sea. Secondly, the Red Sea route, from India, by way of Bombay, down the river Indus to Kurrachee, thence up the Persian gulf, via Shiraz and Ispahan, to Teheran, the junction of the north and south Persian routes. Kiev, the holy city of Russia, is located on the

river Dnieper, and is visited annually by thousands of pilgrims. In 1869 the cholera spread from Kiev down the river Dnieper to Odessa. It arrived 1870 on the Baltic sea, by the rivers Niemen and Vistula, which are connected with the Dnieper by a series of canals. In 1871, cholera prevailed in Prussia and Austria; in 1872, Austria, Prussia, Italy, France and Holland; in 1873, in Great Britain. In 1873, too, cholera entered New Orleans, from Europe: no less than seventy-three vessels having arrived from infected ports.

The history of an initial case was then given with great clearness and rapidity, of an Ohioan sick with the cholera on a river steamer from New Orleans. He died before reaching Memphis, at which place his remains, as well as his garments and soiled clothes, were taken ashore, and the body put into a casket and forwarded to his home. The German woman who washed his garments and his body, died from cholera two days afterwards. From these two cases the epidemic originated, and from none other. Near this city various public works were in progress, canals and railroads. It was in this city (Memphis) that the great outbreak or explosion of cholera took place—(it was not the first point of infection, however)—from which in all directions the disease was carried. The various lines of railroad in the State of Kentucky were pointed out as having numerous towns into which cholera had been brought by commercial travelers, by negroes, or by infected clothing. Then various counties of Kentucky were mentioned as having peculiarities of the epidemic, due to their remoteness from lines of travel, or to streams of water, or good general hygienic condition. It was in Adair county that the cholera was most malignant of the counties of that State—Kentucky—especially in the town of Columbia, where in the rear of a livery stable there was a privy vault full of the most foul putridity; the ground adjoining it was saturated with the fluid from this pest-hole. The proprietor of the stable rejected all attempts made to have it cleaned. Late in August, a negro who had cholera used this privy; from this point of origin, twenty-six persons lost their lives from cholera. Reference was then made to the Marion County Fair—Kentucky—the doctor explaining how universal is the custom among the people, of attending these gatherings; and said that the fair held in August of 1873 proved a most disastrous

means of general dissemination of cholera through that and all the adjacent counties. He was understood to say that it was in one of the patients who took cholera at this time and place, that there was *complete retention of urine for five and one-half days, with subsequent recovery.*

The depressing influences of a panic were forcibly and vividly illustrated by the cases in Garrard county, Ky. In 1836, there had been a devastating epidemic of cholera in that county, and from that time the people had handed down stories of its ravages and sorrowful scenes. When, therefore, after combating the disease in 1873 as being cholera morbus, it was declared to be Asiatic cholera, the consternation and panic became overwhelming, and the disease very virulent and fatal.

A graceful tribute was paid to the authorities of Lancaster, Garrard county, Ky., for that which had seldom been done elsewhere, namely, paying the physicians who labored to subdue the disease; they also disinfected the districts, and took care of the poor, at the public expense.

Dr. McClellan said that he was anxious to obtain the records of the epidemic in the direct line of the disease; he had no desire to be *ex parte*, or to support any theories, but simply to secure facts. He wished physicians would record their cases, and would be glad if they would give him notes of any, stating the details as minutely as possible, such as the sex, age, color, condition in life, date of attack, date of recovery, date of death, remarks, and treatment.

As to the pathology and treatment of cholera, little was said, for lack of time. It was considered to have three stages. The first, was the premonitory painless diarrhœa. Cholera is the only malignant disease amenable to treatment in its first stage; this should be promptly treated, else, if it go beyond, the patient is where no human power can help him. In 1873, there was cholera in Mississippi, Alabama, Georgia, Missouri, Kentucky, Arkansas, Ohio, Illinois, Dakota, Minnesota, and, for the first time, it went to the Rocky Mountains. It was most severe in Mississippi, Kentucky, Illinois, and Eastern Tennessee.

Dr. Hay said that he was glad to have the privilege of hearing the address of Dr. McClellan. Like many other members of the profession, he had been skeptical about the specific character of

the epidemic of 1873, until he had had the opportunity, through the kindness of the Sanitary Superintendent of Chicago, (Dr. B. C. Miller), to examine the infected district, and many of the cases thoroughly. The result of this examination was to banish all doubts from his mind. The convictions then formed had been corroborated by the remarks of Dr. McClellan. Dr. Hay thought, moreover, that there was one point in the doctor's remarks which deserved more than a passing notice, and this was the collation of epidemiological with meteorological statistics, as having a most important practical bearing upon our knowledge, and management of epidemics. In fact, the whole subject of epidemiology was a problem of three essential factors—

The first of which was, the specific poison present, *per se*;

The second, atmospheric and telluric conditions favorable to its preservation and transmission; and

Third, a condition of the individual organism favorable to its reception and development.

The absence of any one of these factors prevents the accomplishment of the problem.

In conclusion, Mr. President, I move that the thanks of the Chicago Society of Physicians and Surgeons be tendered to Dr. McClellan for the very interesting and instructive remarks he has kindly given us this evening.

Which being put to vote was carried unanimously.

Dr. I. N. Danforth said, those who have listened attentively, must have been convinced of the existence of specific disease germs; they can be traced, man by man, from well to well, drain to drain. The Government has certainly assigned the right man to the right place.

Dr. McClellan said that he could say one thing, that of all the reports he had yet received, the report of the Board of Health of Chicago was the most comprehensive of any; the facts were clear and to the point, and would give him the greatest assistance. Its microscopical report by Dr. Danforth was the only one he had yet found.

Dr. Owens adverted to the fact that this Society had appointed a committee last year to study the disease. The Sanitary Superintendent was present, and said that the first case of cholera in Chicago, in 1873, occurred on May 24th, at No. 444 Arnold street, in

the person of John McFee, a bridge builder, who had been working near Memphis, and left on account of the cholera. When he arrived in Chicago, he had diarrhœa which remained unchecked, and after a week or ten days there were developed choleraic symptoms, which proved fatal.

Transactions at Regular Meeting, September 28, 1874.

Dr. J. E. Owens, Vice-President, in the Chair. The Society met, as usual, in one of the parlors of the Grand Pacific Hotel, and, in the absence of Dr. Hyde, Dr. A. Reeves Jackson acted as Secretary.

Dr. Owens gave, briefly, a report of two cases of fracture treated at St. Luke's Hospital, in one of which, that of a colored man thirty-eight years of age, a piece of bone the size of a filbert had been broken off from the left fibula, about two inches above the external malleolus. The case progressed favorably under the usual treatment, by Dupuytren's splint, the fragment of bone speedily united and became incorporated with the long bone itself. The second case, a fracture of the humerus just above the condyles, was of interest, from the fact that it was caused by the throwing of a base-ball.

Dr. H. A. Johnson addressed the Society upon the subject of Pneumatic Aspiration, illustrating the same by exhibiting and explaining the several forms of instruments now employed, exposing at the same time defects, both in theory and construction, of some of the aspirators. The following is a synopsis of his lecture :

In the first place, the question arises as to what is understood by the term aspiration. Is it anything new, either in principle or mechanism? Is it merely after the fashion of the stomach pump? Some physicians deny that there is any new principle involved in pneumatic aspiration. In my judgment, Dieulafoy has introduced a new idea, and instrument. It consists in this—the previous production of a vacuum, and then its connection with a cavity containing fluid.

The second question that presents itself, is that of the methods of producing this vacuum. The aspirator of Dieulafoy was then explained. It consists of a glass cylinder in which there is a piston, moved by means of a rack and pinion. The aspirator is enclosed in a metal frame, having a broad and heavy base.

There is attached a graduated scale to measure fluids, and also two stop-cocks. The canules and needles and rubber tubing were also exhibited.

Dr. Johnson showed another form of aspirator, known as the *Aspirateur Potain*, to which, for reasons hereafter to be given, he gave the preference. In referring to an instrument made in Boston, a modification of Potain's, he said that it would be unnecessary to purchase the bottle accompanying it, as the perforated rubber cork, with its double canula, would answer every purpose, and bottles were always easily to be found, in most families.

Thirdly. The next step, is to place the vacuum in relation with the cavity to be emptied. As regards the choice of a needle and canula: there are two kinds of needles in use, each suited to its particular purposes. One of the needles is like the ordinary one, used in hypodermic injections; but this is objectionable in cases where the sharp penetrating point going beyond the wall of the cavity, might injure delicate viscera, as for example the lungs. In many respects the needles and canules, which differ from the needles first described, of the Aspirateur Potain, are greatly to be preferred.

This, the second variety, is really a trochar with a canula, with a branch tube for the attachment of the soft rubber connection. In case of obstruction, the canula can be cleared with a celerity and ease quite impossible to the first variety of needle.

The method of puncture was next explained, and that it was necessary first to determine where you wanted to put the point, and then how deeply the puncture should be made.

In some cases, there are gases as well as fluids in a cavity, and by this means the vacuum of some forms of the aspirator may be disturbed, if not destroyed. The application of pneumatic aspiration has been widely discussed of late years in the medical journals. During the past two years, in which Dr. Johnson has employed this instrument, and in upwards of seventy different cases, he has never seen in a single instance any particular discomfort to the patient, from its use. Among the numerous cases reported, the particulars of a case of an obscure and deep-seated pain in the mammary region, which, upon exploratory puncture an inch and a quarter deep by the aspirator, proved to be an abscess, were most instructive. In another case, that of acute infantile hydro-

cephalus, he had introduced the needle of the aspirator into the anterior fontanelle to the right of and toward the median line, the point directed obliquely, so as to penetrate the membranes beneath the vessels of the longitudinal sinus. A little fluid was drawn off, with temporary relief to the breathing and circulation. There were no unfavorable symptoms attributable to the operation. The patient, however, subsequently died. In another case, where there was acute effusion in the knee-joint, pneumatic aspiration afforded prompt and decided relief, but in forty-eight hours the effusion had returned. The great assistance to be derived from pneumatic aspiration in differential diagnosis was illustrated by the case of a patient who had been under the care of a homœopathist for so-called uterine trouble with reflex uterine irritation. Upon examination, it was found that the apex of the heart was under the axilla, and that the right chest measured two inches larger than the left. The question then arose as to whether there was a solid morbid growth in the thorax, or a fluid only. Upon introducing the canule of the aspirator into the chest, upwards of two and one-half quarts of muddy serum, not yet quite purulent, were drawn off. The patient for the past year, since that event, has been in perfect health.

The subject of injury to the lungs by aspiration by a penetrating wound of the needle, was then discussed. Several cases of great interest and value were cited, going to show that the danger to the lung in any event would be little or none. A noticeable feature in pneumatic aspiration is, that by this operation there is little probability of introducing from without inwards, any points for future infection of the system. Preference was given to the Aspirateur Potain over that of Dieulafoy, because the vacuum was less uncertain, and is more easily to be maintained. It was not considered to be a point of advantage in Dieulafoy's aspirator, that it might be used for the injection of medicated fluids into cavities, inasmuch as it would be like using an unwashed syringe lately containing unhealthful fluids,—pus, for example,—to throw new and medicated fluids into the body.

Dr. Owens reported a case under the care of Dr. Heydock, in which pneumatic aspiration had been tried upon an effusion in the pericardial sac, of a patient who had pericarditis and endocarditis. At the time of the operation, the pulse was 126, temperature, 101¾°

Fah., and respiration, 66. The precordial dullness extended from the first rib to the upper margin of the sixth; apex impulse indistinctly felt in the fifth intercostal space. Laterally the percussion dullness began at about the middle line of the sternum, and extended around to the left side. The needle of the aspirator was inserted in the fourth intercostal space, one inch and a half from the left margin of the sternum: it was pushed upwards, inwards, and a little backwards. Frothy, dark-colored blood appeared in the receiving bottle, probably because the lung had been pierced. Three-quarters of an hour after this operation, the pulse was 120, and the respiration, 45. Dieulafoy remarks of adults that when the needle has penetrated from 1.17 inch to 2.34 inches, the instrument must meet either the heart or the effusion. The head and shoulders should be elevated with pillows, while operating, and the needle plunged in at the close of an expiration. This patient, a boy fifteen and a half years of age, afterwards died. The autopsy revealed perfect agglutination of the pericardial layers.

Dr. Johnson gave an account of a similar operation performed upon a patient at the County Hospital, and of experiments he had made upon the cadaver. The puncture should be two and one-half inches from the left border of the sternum; if you go nearer to the sternum you must have a longer needle: there were some reasons which inclined him to think favorably of puncturing in the fifth intercostal space, but as his experiments had not yet been concluded, he reserved his opinion upon this point.

Dr. Emmons read a report of a case of uterine interstitial fibroid tumor, treated hypodermically by ergotin; of which the following is an abstract:

Mrs. X, married, age 45, American, the mother of three children, the youngest of whom is eleven years of age, was in good health till the time of her last parturition, which proved to be a difficult one, followed by hour-glass contractions, and permanent impairment of health. Two years ago, a noticeable change had gradually taken place: menstruation had become copious and more prolonged than usual, requiring patient to keep the bed for ten days at a time: she was emaciated, had sciatica and chronic laryngitis. At the time of Dr. Emmons' first visit—December, 1873—in addition to above symptoms, the patient had become so exsanguinous as

almost to be in a state of syncope, from constant flooding—there was pain in the uterus and chest—loss of appetite and sleep. There was abdominal tenderness, particularly over the region of the right ovary. The uterus was enlarged, extending up to within two inches of the umbilicus, and a little higher upon the right than left side. Digital examination, per vaginam, revealed anteversion, the os low down against rectum, and dilated to about one-half inch. A metallic sound could be introduced (with strong curve towards anterior wall of abdomen) to a depth of six and one-half inches; a flexible catheter passed an half inch farther. There was a hard tumor commencing at middle of the neck of the uterus, attached to its anterior wall, and extending to the fundus uteri.

Treatment: directed a tonic of iron and quinine, and

R.	Ergotin (Bonjeau), - - - -	dr. j.
	Aquæ Destil., - - - -	f oz. j.
	Glycerini, - - - - -	f dr. j.

M. Sig. Twelve drops, daily: hypodermically. Improvement was immediate, as shown by the subsidence of pain and hemorrhage. At the end of fifty-nine days, the patient was much better, pulse fuller, appetite better; sleeps well and without anodynes, and able to sit up two hours daily; less abdominal tenderness, but no diminution in size of tumor. The dose of ergotin was increased so as to get about four minims per dose, and continued for three weeks without any particular change in the patient's condition.

The use of Squibb's aqueous solution of ergot, prepared for me so as to get one grain of the drug to the minim, giving twenty minims daily by hypodermic injection over the deltoid, was most satisfactory. Examination twelve days after this change of medicine, revealed the tumor subsided to four and one-half inches below umbilicus. The cavity of uterus measured about five and one-half inches in depth. Patient able to ride out daily; has gained eighteen pounds during the past fortnight, is entirely free from pain; last menstruation normal in quantity, and lasted four days. At another examination in June the fibroid had still farther diminished in size: the uterine cavity measured four inches in depth. Patient complained at this time of a quite free watery discharge from the vagina. A month later, during which time the treatment had been continued, the uterine cavity was found to measure three and one-half inches in depth, watery discharge still present. The

treatment was suspended for ten days and then resumed. In August the uterus had regained its normal size, and no tumor remained. The continued daily hypodermic injection, during a period of 156 days, of the twenty minims of a preparation containing Squibb's aqueous solution of ergot, had the effect of gradually reducing the fibroid till hardly a trace of it could be found. There was no particular inconvenience or irritation produced at the points of puncture, especially after laying aside the use of the alcoholic preparation of ergotin.

Dr. Emmons gave some quotations regarding the action of ergot from the results of an experimental investigation by Dr. Warnich, and from recent works of other authorities, such as Drs. Paul Vogt, Ritchie, Handelin, and C. Boldt. *In true interstitial fibroid of the uterus, treated hypodermically with the aqueous solution of ergot, we may expect in the large majority of cases, eminently more satisfactory results than by any other mode of treatment, or by operation.*

Dr. Davis. Why was the medicine not administered by the stomach?

Dr. Emmons replied, because the effect was more satisfactory when given hypodermically; it enters more rapidly into the circulation, and does not disturb the appetite or digestion. He knew of a physician who had given the ordinary tincture of ergot by injection and thereby quickly produced numerous abscesses.

Dr. Merriman said that in a couple of cases under his care there have a quantity of abscesses followed upon the hypodermic use of a solution of ergotine. Afterwards, he gave Squibb's extract of ergot in solution, by the mouth, but it was not so efficient as when given by injection. He had always made the insertion directly over the region of the uterus. Even in treating cases not of interstitial form of fibroids, when giving ergot by the mouth, great benefit has been apparent; the debility is lessened, the menstruation has become more regular in amount and time, the patient feels better even when there has been no diminution in size of the uterine growth.

The Society next discussed the report of the Committee on the Medical Fee Bill, but owing to the lateness of the hour, adjourned, leaving the question of its adoption to a future meeting.

Chicago Medical Society. *Transactions at the Meeting of Aug.* 17, 1874. Dr. GRAHAM, Reporter *pro tem.*

The President, Dr. Quine, in the Chair.

Dr. Stillians presented a specimen of intestine, showing intussusception of the colon at five different points, three of which were well marked. The patient was a boy five years old. The only symptoms at first were constipation and colicky pains, for which anodynes and cathartic enemata were given. There was afterwards some flatulence, and a tender point was discovered below and to the right of the umbilicus. A very small quantity of feces was passed at two or three different times after giving the injections. During the second day the skin became hot and the pulse rapid and feeble, which symptoms continued and became more prominent, death ensuing that night.

In answer to a question, the Dr. stated that there had not been any vomiting or discharge of blood from the bowels. Dr. Dyas said it was very unusual not to have these symptoms, and that there was generally a tumor on the right side. Death was often caused by the shock to the system, without any symptoms of inflammation being present. Purgatives should not be given in such cases, but enemata of simple water and opiates should be chiefly relied on.

Dr. A. H. Foster read a report of a case of hydrophobia.

On motion, the discussion of this paper was deferred till the next meeting.

Dr. H. M. Lyman read the following report of his observations on three cases of diabetes mellitus, occurring in the County Hospital during his term of service:

Diabetes Mellitus.—Three cases of this disease were under treatment. One died; another left the hospital, after remaining three months under treatment; the third was still in the house at the close of my term of service. He was a man in middle life, whose case presented no unusual symptoms. The boy who left us was of Swedish parentage, æt. 17 years, admitted to the hospital April 18, 1874. Had never noticed any failure of health till about March 1, when he began to experience great thirst, dryness of the skin, frequent and copious urination, dull aching in the legs, progressive weakness, a ravenous appetite, and some indistinctness of vision. On admission, his pulse, temperature and respiration were normal, but the skin was dry and desquamating, and his

tongue was red and dry in the centre. During the first twenty-four hours after admission, the patient voided twelve pints of urine, (sp. gr. 1032), which gave a decidedly saccharine reaction with Fehling's test. He was ordered the most nitrogenous diet which our somewhat limited resources could supply; was douched with cold water every morning, and took once every four hours a scruple of bromide of potassium, with an equal quantity of chlorate of potassium. He had ten grains of Dover's powder every night. April 24, voided seventeen and a half pints of urine.

The quantity gradually diminished till May 3, when it was only nine pints. At this point it remained stationary until May 12, when the treatment was changed, in order to make trial of a recent German theory of the disease, and the patient took nothing but five grains of carbolic acid three times daily. This treatment proved unsuccessful, for the quantity of urine rapidly increased. May 22 it was fourteen pints; June 1, sixteen pints; June 16, eighteen pints. Medicine now seemed to have very little control over the disease; but when the uncommonly hot weather in July began to stimulate the functions, the urinary discharge was rapidly diminished, and when the patient left the hospital, July 18, he voided six pints *per diem*. In every other particular, however, his condition was unchanged.

The diabetic patient who died under treatment was an Irish laborer, æt. 22 years, admitted Feb. 11, 1874. For about six months he had been losing flesh and strength. Had experienced a slight tracheal irritation, but did not actually begin to cough till three weeks before entering the hospital. On admission, he was very much emaciated; his face was flushed; skin harsh and dry; tongue clean; appetite good; bowels costive; urine copious (sp. gr. 1020) and saccharine. A slight cough attracted attention to his lungs: respiration was largely abdominal, and the respiratory sounds were exaggerated.

He was ordered to take cod liver oil, with citrate of iron and quinine. The quantity of urine gradually diminished from fifteen pints *per diem*, till May 5, when it was only eight pints.

He was now ordered to take carbolic acid instead of iron and quinine, but no benefit was derived from the change. As the weather grew warm he voided less water, but the disease progressed, and he died July 14

Autopsy, thirty hours after death. Extreme dryness of all the tissues was remarked. The brain was very anæmic, but otherwise healthy. The condition of the left lung was normal, but the lower lobe of the right lung was tubercular, and contained several suppurating cavities. The liver and spleen were of the usual weight, but were filled with masses of tubercle, which had in several places degenerated into tubercular abscesses. A similar abscess, as large as a pea, was found upon the greater convexity of the left kidney. The other viscera presented no unusual appearance.

Dr. J. S. Knox gave the details of a case of uterine disease, in which there was sloughing of the entire cervix uteri. The patient had been under treatment for twenty-seven years by many different physicians. Had submitted to leeching, scarification, cautery, fomentations, douches, paintings with iodine and chromic acid, and had tried "pessaries enough to support the womb of time through all eternity." She came under the Dr.'s care by applying for readjustment of a Hodge pessary, which she had worn for a long time.

It was removed on account of the inflammation, which it seemed to have produced, and emollient treatment was pursued several weeks, when the sloughing took place. The rapid healing of the stump, and the absence of every sign or symptom which would cause a suspicion of malignant disease, led the Dr. to conclude that the sloughing was the result of diminished vascularity and vitality, due to the many recurring inflammations, and the abundant treatment of previous years.

Dr. W. E. Clark exhibited the sac of an ovarian tumor which weighed fifty pounds. The Dr. had removed the tumor this afternoon. Both ovaries were diseased, and there was also a fibroid tumor of the uterus.

A motion was made and passed, after considerable discussion, to appoint a committee of three to co-operate with similar committees from the Society of Physicians and Surgeons, and the College of Pharmacy, in considering the relations of physicians and pharmacists, and to consider and report any measures thought necessary to check the prescribing of proprietary medicines.

Drs. A. H. Foster, Stillians and C. W. Earle were appointed such committee.

On motion, Society adjourned.

Transactions at Meeting of Sept. 7, 1874. Reported by WILL T. MONTGOMERY, M.D.

Chicago Medical Society met as usual in the parlor of the Gault house, the President, Dr. Quine, in the Chair.

The discussion of Dr. Foster's paper on hydrophobia, read at the last meeting, having been postponed, first occupied the attention of the Society. Dr. Foster, upon further inquiry, had learned that the dog had been acting queerly for several days previous to the time of biting the child. There was nothing peculiar in the appearance of the body after death.

Dr. Earle hoped that the question of virus or non-virus, upon which the profession are divided in opinion, would be considered.

Dr. N. S. Davis had not heard the paper read, and was not prepared to discuss it. He had never seen but one case of hydrophobia, in a practice of nearly forty years, and in that case it was not possible to trace the origin of the disease to any bite. The patient had all of the symptoms and post-mortem appearances of the disease. His impression had been that we may get all the phenomena of the disease without infection from bites.

Dr. Holmes had seen a case about twenty years ago, in the Massachusetts General Hospital. He first saw the patient, a little girl, about twelve hours after she had been bitten by a rabid dog. The wound was thoroughly cauterized at this time, and the patient was taken to her home. In about a week she was brought back to the hospital, with well marked hydrophobia, and soon died. The least draft of air upon the surface, even the breath of the attendant, was sufficient to excite spasm in this case. He believed the poison to be specific, and thought it possible for a patient to be bitten without knowing it.

Dr. T. D. Fitch had never seen a genuine case of hydrophobia, but had recently seen a spurious case in a man who had been bitten by a healthy cat. The patient soon began to improve upon the use of nervous sedatives, but had a relapse from reading the late discussion of the disease in the newspapers.

Dr. E. F. Ingals. It seems from the literature of the subject, that this disease has been known almost since the time of Adam. It seems to have been most frequently met with in temperate climates, and is said never to occur in Egypt, and other portions of Africa; in the hottest portions of South America; in Green-

land, Labrador and Iceland. It rarely occurs in the Southern portion of Turkey, and seems less frequent in the Southern than in the Northern States of this country. The people have the impression that it seldom occurs except in summer, but this view is incorrect. Out of 100 cases of hydrophobia, in which the time of receiving the bite is recorded, we find, spring twenty-five; summer thirty-five; autumn thirteen, and winter twenty-seven. The disease is common to the canine and feline races, and has frequently occurred in horses, cattle and swine, as the result of inoculation. One rather doubtful case is reported as having been produced by the bite of a cock. Hydrophobia never occurs spontaneously in man, in whom it is a rare disease. In France, it is said, one case occurs yearly to every 1,500,000 inhabitants. In dogs, the disease is doubtless spontaneous in some instances, but is generally the result of inoculation. For instance, a ship arrived in the port of Havana, after a long voyage of several months, at the time that hydrophobia was rife in the city. The dogs on board soon took the disease, though they had not been on shore. Prediposing causes to this affection in dogs are said to be putrid aliment, bad and deficient supply of water, and extreme heat and cold. Thousands of dogs have been exposed to the two former causes without taking it, and rarely or never can a case of this disease be traced to such causes, so that it is doubtful whether there is ground for the belief. Extreme heat and cold produce debility, which render the dog more liable to the disease. Out of 133 cases the bite had been given by a dog in one hundred and five; wolf in twenty; cat in five. During the period of incubation, which lasts from ten days to six months, and more, it is stated by good authority, that an eruption appears beneath the tongue, between the third and fifteenth day. In 235 cases observed, with reference to the period of incubation, in forty-eight cases it was from ten to thirty days; in one hundred and fifty-nine cases, thirty to sixty days; in seventy-five cases, sixty to ninety days; in thirty-one cases, three to six months; in thirteen cases, six to nineteen months; in one case, three years and four months; in one case, four years, and in another, five years and six months. Not more than one-third of the persons bitten by rabid animals have hydrophobia. There is not a single authentic case of recovery.

In the treatment of this disease scutellaria lateriflora was much used in the early part of this century. Cauterizing the vesicles found beneath the tongue, alcohol, opium, and introduction of water, have been recommended.

Dr. Powell suggested tracheotomy as a means of prolonging and perhaps saving life, as the direct cause of death is usually spasm of the glottis.

Dr. Ingals had read of cases in which this had been resorted to without success.

Dr. Van Buren had seen a case of snake-bite, in which alcohol seemed to neutralize the poison. The man was drunk when the snake bit him, yet was given large doses of whisky and recovered. He did not know but alcohol in large quantities might neutralize the poison of hydrophobia also.

A paper by Dr. W. T. Montgomery, which had been announced for the evening, was next called for and read. The paper was a collation from a record of 112 cases of typhoid fever. It was moved and carried that the paper be accepted and published with the proceedings of the Society. The discussion of the paper was postponed until the next meeting.

Transactions at Regular Meeting held September 21, 1874.

Chicago Medical Society met in regular session in the parlor of the Gault House. In the absence of the President, Vice-President Paoli was called to the Chair.

The discussion of Dr. Montgomery's paper on Typhoid Fever was first in order of business. Dr. Danforth inquired as to the mortality of the cases under consideration. Dr. Montgomery stated that there were 20 of the 112 cases fatal. Dr. Danforth had recently met a practitioner who had not lost a case in a practice of forty years, and thought he ought to be appointed physician to the hospital. Dr. T. D. Fitch had been in the habit of administering veratrum in mucilaginous drinks, in the early stages of this fever, with good effect. It had not been uncommon with him to find constipation in the beginning of the disease. He had imagined that carbonate of ammonia had a beneficial effect as an antiseptic, and in preventing heart-clot in the late stages of the fever. Dr. Hutchinson thought, as the paper dwelt more particularly upon the use of the thermometer as an auxiliary in the diagnosis

and prognosis of this disease, the discussion should be limited to this. Dr. T. D. Fitch had not had much experience with the thermometer in typhoid, but so far as he had used it, had found it a valuable aid.

Dr. Paoli thought it was remarkable that a physician should never have a death from this disease, but thought the mortality much greater some years than others. One year, while he was in Stockholm, the mortality there was about forty per cent. He considered the thermometer valuable in diagnosis and prognosis, but its use was not new. It had been used in Vienna in this disease as much as fifty years ago.

Dr. T. D. Fitch thought we should not entirely ignore the statement of some physicians that they never lose a case of typhoid. It may be a coincidence. He did not remember when he had lost a case.

Dr. Danforth presented microscopical specimens of two ovarian cysts. The first was from a tumor of long standing, removed about a month ago by Dr. Wm. E. Clark. It was for a long time doubtful as to what it was. He was requested to examine some of the fluid from it, and found Eichwald's gorged granules and crystals of colesterin. He had never found either of these from any except an ovarian cyst, and he had examined the contents of a number of these cysts and never failed in but one instance to find the granules, and in that he was not sure that the fluid came from a cyst. These granules are believed to be degenerated cells. The granules and crystals of colesterin were both clearly shown in this specimen.

The second specimen was of colloid cells form, removed by Dr. John E. Owens about six months ago. The tumor in this case was not of so long standing. These cells are found in the early development of ovarian cysts, and the granules in the later.

Dr. Bridge inquired as to the difference between colloid and cancer cells, and if the former were malignant.

Dr. Danforth. The difference is, the colloid cells are all after the same type; cancer cells may have any form. If a morbid growth presents cells all of a certain type, it is not malignant.

Dr. Steele reported the following case for Dr. Quine, and presented specimen of cyst:

Regina W., aged 27, unmarried, has menstruated regularly since

the sixteenth year of her age. Five years ago her abdomen began to enlarge, and she noticed, also, that pain attended the first two days of the menstrual flow. In August, 1872, after severe muscular exercise, she was seized with pain in the right lumbar region that continued several months, and was accompanied by fever, progressive emaciation, and rapid increase in the size of the abdomen. So burdensome did the enlargement become, that she was incapacitated for work, and was obliged, in May, 1873, to seek relief in the County Hospital. She was extremely emaciated, her skin was sallow, and her features were expressive of anxiety and suffering. From May, 1873, to August of this year, she was tapped six times, the aggregate amount of fluid evacuated being one hundred and sixty pounds. The fluid was of a dark-greenish color at first, very viscid and thick, and contained a copious admixture of pus; but its character improved with each succeeding paracentesis, and the accumulation became more rapid. In two instances the operation was followed by peritonitis. From the first, tonics were employed, and hygienic measures instituted, with a view to improving nutrition; but ovariotomy was then considered impracticable, because of the supposed existence of pulmonary tubercle. The condition of the patient steadily improved, and a pleurisy and pericarditis, under which she had been laboring, got well. A month after the last tapping, the abdomen having again become moderately distended, it was decided, by a consultation between the attending physician and Drs. Byford and Fitch, that an operation was practicable. On the 12th of August, Dr. Quine, assisted by Drs. Fitch and Bogue and the House Staff of the Hospital, performed the operation—making an incision four and a half inches long in the mesian line, and carrying it rapidly through the walls of the abdomen. The trifling hemorrhage from the wound was readily checked. When the peritoneum was cut, the finger of the operator, passed through the wound, failed to discover any adhesions within the circle of its reach. Thirty pounds of fluid were then evacuated by a large trochar, and as the sac was being withdrawn, adhesions to the omentum and right parietes were revealed. Momentary embarrassment was occasioned by a little aggregation of cysts that resembled a kidney very closely in size, shape and color. The omental adhesions, though not very extensive, were exceedingly vascular, and

the parietal adhesions were also vascular and very firm. Some parts of the adhering omentum were tied and cut off, and other parts were gently separated from the cyst walls, and left. Some trouble and delay were occasioned by persistent bleeding from the lacerated parietal adhesions, but sufficient time was taken to check all oozing. The pedicle was ligated by transfixion and double ligature, and cut short. The abdominal cavity was carefully sponged out with tepid salt water, and the wound closed with six silver wire sutures. A compress and bandage completed the dressing. After reaction was fairly established, not a single unfavorable symptom appeared, the wound healing perfectly in six days, and the patient being able to sit up in nine days after the operation.

Dr. Gapen reported the following case also for Dr. Quine, and exhibited tumor:

The doctor saw the lady, a woman of 25 years of age, in a consultation, which was necessitated by malposition of the child in parturition. The labor terminated favorably. Subsequently, owing to the removal of the previous attendant from the city, Dr. Quine was recalled. He then learned that the lady had, for seven years, been suffering from bronchitis and gastro-enteritis, and was reduced to a state of extreme emaciation by these affections. At the first visit the irritability of the stomach was so great that the blandest articles of food were retained with difficulty, and only in very small quantities. Vast quantities of gas were being incessantly eructated and passed from the bowels. The patient was also suffering from a harassing cough, with profuse expectoration, and a very distressing tenesmic diarrhœa.

She improved in condition slowly and unsteadily for several months, and finally, at a time when her health had become better than it had been for years, passed temporarily from the Doctor's care. In November, 1873, she returned in consequence of an exceedingly sensitive tumor that occupied the pelvic cavity, and protruded from the vagina when she assumed a standing posture. She was then seven months pregnant, and complained of a return of the old bronchial and gastro-enteric disorders. A cautious digital examination in his office yielding negative results, the Doctor sent the lady home, promising to call the following evening. He did so, finding her well advanced in labor, the shoulder of the

child presenting. The presentation was made out with great difficulty, owing to the occupation of the pelvis by a sensitive, fluctuating tumor, and consequent displacement of the uterus,—the os pointing to the umbilicus, and being very high. Chloroform was administered, and the child easily delivered by podalic version.

As the child was being withdrawn, the tumor, which had been no impediment to labor, ascended into the abdominal cavity. The patient made a very tardy recovery, owing to the occurrence of pelvic cellulitis; and before she was able to leave the bed, a diagnosis of ovarian tumor was made.

During the succeeding seven months the lady was tapped three times, the second and third tappings yielding respectively less fluid, and correspondingly less relief, than the preceding. At the third tapping, performed in consultation with Dr. T. D Fitch, only about a quart of fluid was withdrawn. The abdomen of the patient had reached an enormous size, and the gastro-enteric disorder, coupled with constant pelvic distress, contributed to render life miserable and threateningly short. Ovariotomy was decided upon by Drs. Bartlett, Bogue, Fitch, and Quine, as the only means that offered the slightest prospect of relief or long continuance of life. Accordingly, and notwithstanding the extreme feebleness and emaciation of the patient, and the existence of grave gastro-enteric disease, the operation was performed by Dr. Quine, assisted by Drs. Bogue, T. D. Fitch, Stillians, and myself. The operation was tedious and very difficult. The abdominal incision extended from an inch and a half above the umbilicus to within an inch of the pubes. The tumor was firmly adherent to all parts of the abdominal walls, and an attempt to pass the grooved director between the cyst and the peritoneum resulted in the rupture of the thin and lacerable walls of the tumor, and the escape of its fluid contents. The omental adhesions were extensive; but there was not adhesion to any other abdominal, nor to any pelvic viscus. The great mass of the tumor consisted of colloid matter, which, in order to remove through the wound in the abdomen, it was necessary to break down into hands-full. The mass being removed, and the pedicle, which was short and only moderately thick, tied by transfixion and double ligature, the abdominal cavity was cleansed, by sponges and salt water, of its colloid and cystic contents. The abdominal wound was closed by six equidistant silver wire sutures. The patient

was then put to bed between woolen blankets; a number of hot bricks were applied, and alcoholic stimulants administered, to promote reaction. The wound was dressed with compress and bandage. Beef tea and brandy were continuously given per rectum, care being taken to avoid provoking movement of the bowels, by injecting slowly and in small quantities. The catheter was used regularly at intervals of six hours. After reaction was well established, the patient commenced to vomit, and vomited almost incessantly for three or four days. Morphine was given hypodermically, in quantities sufficient to allay pain and procure rest; and quinine was administered in the same way to the amount of about fifteen grains daily. Bismuth, in twenty-grain doses, and ice, allayed the irritability of the stomach sufficiently to enable the patient to take considerable quantities of milk. The convalescence of the patient has been much retarded by the old inflammatory disorders, and by an accumulation of putrescent fluid in the peritoneal cavity, which was limited by pelvic and abdominal adhesions. The presence of this fluid in the pelvic cavity gave rise to a general cellulitis, and the sufferings of the patient were further increased by the occurrence of cystitis.

Ten or twelve days after the operation, Dr. Bogue, in consultation with Drs. Fitch and Quine, drew off, through the cul-de-sac of Douglass, by means of the aspirator, nearly three pints of a grumous, fetid fluid, affording prompt and great relief to the pelvic distress. There has been no considerable reaccumulation of fluid, a spontaneous opening into the intestine affording ready drainage of the cavity. The treatment of the case has, in consequence of the complications, been widely different from the plan ordinarily followed, and combined measures directed to the cure of the old intestinal disorder, and the acute inflammation of the bladder. But notwithstanding the almost unprecedented desperateness of the case, and the numerous and alarming drawbacks to convalescence, the patient has been improving steadily but slowly, so that, at the present time, perfect recovery may be confidently predicted. I am requested by Dr. Quine to gratefully acknowledge his indebtedness to Mrs. Prosser, for her faithful and intelligent care of the patient, and to Drs. Bogue and Fitch for frequent and valuable counsels. But to the attentive lady nurse he especially ascribes the successful issue of the case.

Dr. Hutchinson gave a verbal report of two interesting cases of ovariotomy which he had had. He thought his cases were more successful than the others which had been reported, for, besides recovering without a bad symptom, each patient had become pregnant since.

Dr. S. J. Avery reported the following case: Sciatica of several years' standing, cured by replacing a prolapsed uterus. About the middle of August, 1871, he was called to see Miss T. He found the patient, a young woman, 21 years of age, of slight figure, a little below medium height, light complexion and nervous temperament, suffering with pain of right thigh and leg. The following history he learned from the patient: Some three years before, while employed as teacher in an academy in the State of New York, she was attacked with severe pain in the back and hips, extending down the thighs. During the following twelve weeks, she was confined to her room, and a large part of the time to her bed, being unable to move without assistance. She now began to improve in strength and was soon able to take short walks, but was not free from pain or lameness, from the first attack until the present time. During this period she had suffered several attacks similar to the first, lasting two or three weeks, confining her, as at the first, to her room and bed. She had also suffered, from the first, from dysmenorrhœa.

Upon learning her previous history, he informed the mother of the patient, a woman of more than ordinary intelligence, that he suspected uterine difficulty and probably displacement as the cause of her daughter's illness. She replied, that their old family physician, in whose judgment they had implicit confidence, as also, several other medical gentlemen in whose care she had been, had never suggested any difficulty of that nature. It was the desire of herself and daughter that electricity be tried, as that had been highly recommended. According to their wishes he applied the interrupted current—using one of Kidder's batteries—over the course of the sciatic nerve twice a week, for nearly three weeks, the patient taking bark and iron as a tonic. Under this treatment she seemed to improve, and experienced a hope that she was really recovering her health. About this time he was called in haste, the messenger saying, that Miss T. was in spasms. On his arrival he found her suffering from excessive dysmenorrhœa, which was

soon relieved by the use of chloral and bromide of potash. One week after, upon making a digital examination, he found the vulva, beside being somewhat swollen, very tender and sensitive to the touch, the os resting upon the unruptured hymen, which was apparently the only obstacle to complete procidentia. He succeeded with some difficulty, on account of the swollen and tender condition of the parts, in placing the uterus in its normal position, and left the patient with directions to rest in the horizontal position as much as possible, promising to return in three days. On the third day following he found the patient much improved. She stated that she had been free from pain since his last visit. The day before, being Sunday, she had walked to and from church, a distance of nearly half a mile, without any inconvenience, and felt better than she had before since her first attack.

He again replaced the uterus, which had fallen about one-third the length of the vagina, and left, promising to call again in one week. He visited her twice after this, when he found the displacement so slight that further treatment was unnecessary. She took no medicine while receiving local treatment. The patient now returned to her home in the East. Fourteen months after, he received a letter from her, stating that she continued to improve, had gained sixteen pounds in weight, and that she considered her health restored.

The points of interest in this case, are, first, the importance of a correct diagnosis of the causes of backache and sciatica in the female; second, the *probability* of immediate relief in all cases of coincident retroversion by adjusting the womb; third, the possibility of the cure being permanent even without an instrument, care being taken to convert the *retro*version into an *ante*version in order to secure the antagonism of the normal intestinal pressure.

On motion, the discussion of this case was postponed until next meeting.

Dr. T. D. Fitch presented a new pessary which he had had constructed for the treatment of prolapsus, posterior and lateral version of the uterus. The instrument consists of the lever pessary similar to Noeggerath's, with a ring attached to the cervical end in such a manner that when the pessary is in position, the cervix rests evenly upon the ring. The advantages claimed by

the Dr. for his instrument in the treatment of these displacements are, that it maintains the organ in position better, and affords increased surface for pressure, and is much more comfortable to the patient.

Owing to the lateness of the hour, the discussion of this was also postponed until next meeting. A cut and full description of the instrument will also appear in one of the medical journals.

A motion to make the hour of meeting 7½ o'clock, instead of 8, prevailed, and the Society adjourned.

Clinics.

Rush Medical College. Clinic for Diseases of Nervous System, by Dr. WALTER HAY. Reported by HENRY W. HARRINGTON.

Case of Hemicrania.

Mrs. K——, aged forty-five. Housewife. German. Patient is a large, well nourished woman; general health good; appetite good; bowels regular. States that when a little girl, she received a violent blow upon the right temple, and supposes this to have been the cause of her trouble. She recovered entirely from the immediate effects of the injury, but for about thirty years has been subject to periodical attacks of pain in the right temple, recurring at intervals of about a week, sometimes less frequently. These attacks are ushered in by a feeling of chilliness and lassitude; also by excessive yawning; soon the pain begins, mild at first, but growing more and more severe until it amounts to perfect agony. After a time she suffers from nausea, and vomits freely, after which the pain usually begins to subside, and gradually passes away; the attacks lasting from twenty-four to thirty-six hours. The pain is always confined to one side of the head, to the supra orbital and temporal regions. Ordered—R. Sodii bromid. grs. xxx, three times daily, to be continued until bromism is induced, after which, to diminish the amount, taking grs. xxx at bed-time alone, if no more can be borne; also, that her diet be mild and easily digestible, especially at supper.

Remarks. This, gentlemen, is a typical case of hemicrania, or migraine; neuralgia of a portion of the fifth pair of nerves. The blow to which she refers as the cause of the disease, is such, only in a restricted sense. There was present, no doubt, a tendency to disorder of the nervous system; and then the disease was developed at a time in her life when her system was undergoing those developmental changes peculiar to woman; changes which rendered her very susceptible to this disorder. The disease is due

to pathological changes in the cells of the fifth pair of nerves; just what these changes are, or how brought about, is not known. The nausea and vomiting which nearly always occur, have led some to suppose that these constitute the primary disorder, hence the name, "sick headache." They do not, but are the result of thepa in in the head, and are reflex in character. I prescribe the bromide of sodium to allay the nervous excitability and susceptibility to these attacks of pain. I prefer it to the potassium salt, because it is more easily absorbed and assimilated, and more certain in its action.

Two Cases of Organic Infantile Paralysis.

CASE 1. Alice D——, aged seven years. The mother states that the child was apparently healthy when born, and was well until the age of three years, when she had an attack of small-pox; was sick one month; for one year afterwards she was unable to walk, and when she began walking, the mother noticed that she did not walk well; the right leg seemed weak, and the toes dragged. After a time she noticed that the right leg and arm were smaller than the left. Patient sleeps well; appetite good. She is usually good tempered, but often has long spells of crying; she seems to understand what is said to her, but does not remember anything. On examination, find the right arm and leg much atrophied, the extensors more so than the flexors, so that the hand drops, and the toes catch in walking; right leg measures one inch less in circumference than the left. Patient is continually rolling her eyes about, and laughing in an idiotic manner; is constantly in motion, throwing her arms and legs about irregularly; pupils dilated, and only slightly sensitive to light. She was ordered—R. Strychniæ sulph. gr. $\frac{1}{60}$, ferri phosphatis gr. j, acid phosphoric dil. gtts. viij., three times daily.

CASE 2. Amelia W——, aged eight. The mother states that the child was well until she was nineteen months old, at which time she had "brain fever," which was immediately followed by her present trouble. Previous to her sickness she walked without trouble, but afterwards the toes of the left foot dragged in walking, and the left arm also became weak; she could not hold up the hand, nor extend it upon the wrist. She has continued in the same condition ever since. Appetite good; bowels regular; sleeps well. On examination, find left arm and leg much smaller and shorter than the right, corresponding in size to those of a child about two years of age. There is a greater degree of atrophy of the extensors than of the flexors, giving an appearance of contraction of the flexors, so that neither the arm nor the leg can be perfectly extended voluntarily; for the same reason the heel is elevated; left arm and leg very weak. Ordered—R. Strychniæ sulph. gr. $\frac{1}{60}$, ferri pyrophosphatis gr. j, three times daily; also—R. Olei morrhuæ dr. ss, three times daily; good diet and exercise.

Remarks. In these cases you recognize a disease called organic infantile paralysis. It differs materially from the paralysis of adults, in which the essential characteristic is loss of motility without at first atrophy of muscular tissue. In this disorder, there is arrest of development, due to atrophy of those cells in the nerve-centers which preside over nutrition, and the loss of motor power is due to this loss or lack of muscular tissue. In addition to this, we have, in the first case, arrest of development in the hemispheres, indicated by the lack of intelligence.

The indications to be fulfilled in the treatment, are: to increase the nutritive power of nerve-cells, also to increase general nutrition. To accomplish this, we order good diet; tonics, such as iron and strychnia; and those elements which will supply an existing deficiency in nerve-tissue, a deficiency always existing in nervous disease, indicated by the largely increased amount of phosphatic salts in the urine, and showing a waste of nerve-tissue which exceeds repair. Hence, we prescribe phosphorous in some form, on purely physiological principles. We cannot promise a cure, neither will the existing deformity disappear, but further progress of the disease may be arrested.

August 8. Dr. HAY.

Syphilitic Neuralgia.

A woman was presented who complained of pain radiating from the spinal centre round the body along the intercostal nerves. There was spinal tenderness, great sensitiveness to noise and light, pain in the head, and impaired hearing, signs of periostitis of the clavicle and other long bones. Ordered a fly blister, three inches by twelve, to the back, and five-grain doses of the potassium iodide. It is necessary to ascertain the cause of neuralgia; whether it be due to malaria, or nervous exhaustion, or syphilis. The fly-blister, by its reflex action on the vaso-motor nerves, irritates, and produces contraction of the internal blood vessels, lessens the exosmosis and the calibre of the vessels. The heart's action will be increased, and send along the blood faster, whereby absorption into the vessels of effete matter will be increased, and, at the same time, the quick distribution of the iodide she is now taking will be facilitated.

Hospitals.

Cook County Hospital. Surgical Clinic. Dr. FREER. Aug. 4, 1874.

Carcinoma—Orchitis—Phymosis—Amputation of left index finger.

The amputation of the finger was done because of necrosis, the patient having had his fingers severely squeezed. Ether was

given, and Esmarch's bandage applied above the elbow. Two lateral flaps were made, the outer one being the larger flap; the incisions being made an inch above the head of the metacarpal bone, through the dorsum of the hand. To preserve the symmetry of the hand, the head of the metacarpal bone was cut off with the forceps, obliquely from without inwards.

The patient with phymosis had a mixed chancre, a bubo in the right groin, and syphilitic roseola. The under surface of the penis was excoriated, swollen and red. Passing a director beneath the upper surface of the prepuce, it was divided quite down to the corona. Dr. Freer remarked, with much drollery, that this was another case of so-called water-closet disease; the patient said he knew of no other cause for his disease.

Impermeable Stricture—Retention of Urine, relieved by the Aspirator—Perineal Section.

B. L., a man of sixty-four years of age, and of great obesity; had contracted gonorrhœa twenty years ago, from which a stricture resulted. He had no trouble from this till four years ago, when he began to think he had the gravel and cystitis. Before Dr. Freer saw him, an unsuccessful attempt to pass a catheter had caused two false passages in the urethra. The urine came away guttatim; there was retention for seventy-two hours. Fomentations and cathartics were given, and a mixture containing eight drops of laudanum with fifteen drops of tinct. belladonna, every four hours. The bladder was emptied twice by the aspirator, the needle being inserted in the median line, an inch above the pubis. To allay the vesical irritability, there being quite a sharp cystitis, a drachm of spts. mindereris and thirty drops of tinct. hyoscyamus were given every three hours; also injections of bismuth, per rectum. The operation of perineal section was done under ether, the patient being in position as if for lithotomy. The stricture was divided, a catheter tied in, and directions given to have the bladder washed out with lotions of carbolic acid.

August 11. Dr. FREER.

Amputation of the right thigh—Esmarch's Bloodless Method—Amputation at the left shoulder joint.

H. G., forty-two years of age, Irish, while attending to his duties as a switchman, was run over by a train of cars, and suffered a compound comminuted fracture of both bones of the left leg, near the knee, and punctured wound of the lower part of the thigh, the wheels passing obliquely from right to left over the thigh, and stripping off the lower two inches of the periosteum from the femur. The operation was done twenty-one hours after the accident; the patient being under ether thirty-six minutes. Dr. Freer remarked, that for years railroad surgery had become distinct from that of most other injuries, on account of the

and of the general destruction of the vitality of the parts, where, apparently, little harm had been done. In this hospital no limbs had been saved, when amputation had been performed below the point of contact with that which caused the injury. In applying the rubber-band, after Esmarch's method, the limb was first wrapped in oiled silk, to prevent the soiling of the bandage. The amputation was by lateral flaps, and in the middle third of the thigh. While dressing the stump, the attention of the class was called to the superior usefulness of whisky to that of the carbolic acid wash as a lotion for dressing of the stump.

The amputation at the left shoulder joint was rendered necessary by the great laceration of the entire extremity by a railroad accident. The deltoid muscle was, fortunately, well preserved, and made an excellent flap. The muscles on the inner aspect of the limb were contused higher up than those of the outer aspect The head of the bone was first turned out of the glenoid cavity, and a posterior flap made; then entering the soft parts, the operator followed up the course of the axillary artery, and ligated it; the second flap, containing the deltoid muscle, was next made.

Ununited fracture of the left clavicle, of nine weeks' duration, in which the ends overlapped, was treated by the use of Brainard's drill. The boring was done in two places, both pieces of bone being pierced. Fox's apparatus was applied, and was made out of a piece of new muslin, two yards long and one-half yard wide, —a very simple but perfectly effective and inexpensive treatment.

Hæmorrhoids.

This patient tells us that these hæmorrhoids have given him great inconvenience for the past six years. They are now as large as a walnut, are mostly internal, and distinct from the integument. Five large tumors were removed, the patient being under ether, by means of the clamp and the actual cautery, heated to a white heat. The sphincter ani was first dilated, so that the parts to be removed could readily be drawn down and out.

During the month, Dr. Steele has had two labor cases in which the women gave birth to twins. In the first case it was the fourth labor, and lasted seventeen hours. The presentation was vertex in the first position. The children were born two hours apart; there was one placenta for the two females. In the second woman, the labor was normal; one placenta; presentation was vertex and footling; two females; and the second labor.

St. Luke's Hospital. Surgical Service. Dr. OWENS.

A German laborer, twenty-two years of age, had a part of his left foot crushed by railroad accident. The great toe and its metatarsal bone were removed, together with the second toe, and the head of its metatarsal bone. After the wound began to

granulate, thin grafts of skin were placed upon it at five various spots. The reparative process was remarkably hastened near and around these grafts as centres, which speedily spread out and united with the borders of the wound already healed.

Editors' Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.]

A Treatise on Food and Dietetics, Physiologically and Therapeutically Considered. By F. W. PAVY, M.D., F.R.S., Fellow of the Royal College of Physicians, and Lecturer on Physiology at Guy's Hospital. Philadelphia: Henry C. Lea. 1874.

A summary of everything used for human food, from clay to turtle soup, by every nation in every clime. Dr. Pavy has ransacked the literature of gastronomy—not only ransacked but digested the most of it, and given us admirable instructions by means of which our own digestion may be made the more easy.

The author, moreover, has done much more than this, he has given us a history of food, its relations to the organism, its mode of appropriation, its sources of supply, its constituent elements, and an admirable classification of its principles and their chemical and physiological relations.

In addition to the consideration of the subject of food, in the restricted sense of edible matters, a considerable section of the work is devoted to that most essential of all its elements, water, together with those important adjuncts to the dietary of higher civilization, tea, coffee and cocoa, with the not less valuable wines, of all varieties and nationalities, and many analogous beverages.

The sections devoted to the description of food in its climatic and ethnological relations, present much that is interesting and suggestive, as are likewise the dietetic rules for infants and adults, and for hospitals.

The work will amply repay the reader, whether professional or

general, and should find a place in the office of every physician, in the dispensary of every hospital, and would constitute a valuable addition to the household library. H.

A Manual of Toxicology, including the consideration of the nature, properties, effects and means of detection of Poisons, more especially in their Medico-Legal Relations. By JOHN J. REESE, M.D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania; Physician to St. Joseph's Hospital, etc., etc. Philadelphia: J. B. Lippincott & Co. 1874.

While the truth of the author's prefatory remark that "the literature of Toxicology is already voluminous," cannot be denied, his work cannot fail to be very acceptable to a large majority of his compatriots in the profession, for several reasons: first, in that it is a manual, and as such, devoid of much which the practical reader might regard as irrelevant; second, in that it is accessible to every one; and thirdly, that it is American.

Beginning with the best definition of "a poison," the author proceeds to draw a clear line of demarcation between matters essentially poisonous and those incidentally so; regarding which line public sentiment directed by the civil law is by no means well educated, and therefore will receive much enlightenment herein.

It is gratifying to perceive that our author is not a partisan of either the doctrine of absorption or of nervous sympathy as a means of inducing poisonous effects in the organism.

The chapter on compound poisons will be found to possess especial interest, in view of the practical application of which the antagonistic relations of different poisons are susceptible.

The advice to medical experts, and the delineation of the injustice to which they are so often subjected, should be thoroughly studied by every medical man who may be called upon at any time to appear upon the witness stand in this capacity. The impositions to which this class of witnesses is habitually subjected are narrated with the acumen derived from personal experience, and their condemnation must receive the endorsement of all who have similarly suffered.

Full details are given of the most approved methods of chemical analysis for the detection of poisons.

The chapters upon classification are full and explicit, and the exposition of the specific effects of various poisons as complete as the present state of the science permits. H.

A Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M.D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York; etc., etc. Fourth edition, thoroughly revised. Philadelphia: Henry C. Lea. 1874.

Perhaps the highest praise which can be bestowed on any book is the demand on the part of the reading public for new editions—it certainly demonstrates one fact, that the book is adapted to their wants. This fact has been thoroughly established in the case of the book before us, of which three editions have been exhausted and a fourth issued within five years. Our transatlantic brethren have manifested their high appreciation of the work by translating it into German, as they will shortly do into French and Italian also.

We do not propose here to enter upon the superfluous task of making a detailed analysis of the contents of Dr. Thomas' excellent work. We say superfluous, because those already acquainted with the work could not thereby learn to estimate it more highly, and those to whom it is still unfamiliar can only do it, and themselves, justice, by its speedy possession and careful study. We will venture to say one word only in commendation of the literary merits of the work, of which the style and diction proclaim its author to be not only a skilled gynæcologist but an accomplished scholar. H.

Clinical Lectures on Diseases of the Nervous System. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System in the University of New York, etc., etc., etc. Reported, edited, and the histories of the cases prepared, with notes, by T. M. B. CROSS, M.D., Assistant to the Chair of Diseases of the Mind and Nervous System in the University of New York. New York: D. Appleton & Co. 1874.

Dr. Hammond's Treatise on Diseases of the Nervous System, has become so universally popular as to be familiar to most of our readers, who will be glad to accept this effort to condense the essential propositions embodied in that work, into the less bulky proportions of this one just issued, by which the author's views are

brought more directly within the reach of a much greater number, who may have been deterred by its greater bulk and cost from the study of the former work. While the volume before us is to some extent a condensed summary of the principles of the larger treatise, it is something more than this, for while many of the subjects of lesser importance are omitted, others of more directly practical value have been elaborated more fully, to adapt them more especially to the necessities of a clinical class.

Of Dr. Hammond's acquirements as a neuropathologist, as a clinical teacher, or as a scholar, it is needless to speak here, but we will take the liberty to felicitate him upon his good fortune and judgment in the selection of his assistant and editor, Dr. T. M. B. Cross, to whom both he and the profession at large are equally indebted for his labors in the collation of the data and the preparation of these lectures. H.

BOOKS RECEIVED.

Erysipelas, and Child Bed Fever. By THOMAS C. MINOR, M.D. Cincinnati: Robert Clarke & Co. 1874.

Infant Diet. By A. JACOBI, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York. Revised and enlarged, and adapted to popular use, by M. P. JACOBI, M.D. Geo. P. Putnam's Sons.

A Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M.D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York; etc., etc. Fourth Edition, thoroughly revised, with one hundred and ninety-one illustrations on wood. Philadelphia: Henry C. Lea. 1874.

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" Missouri Clinical Record—October.
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" " " Supplement, Oct., 1874.
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" Medical Examiner, Chicago—October 15.
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" Pacific Medical and Surgical Journal—Sept., 1874.
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" Richmond and Louisville Medical and Surgical Journal—Sept., 1874.
" St. Louis Medical and Surgical Journal, Oct., 1874.
" Southern Medical Record—September.
" Transactions of the Wisconsin State Medical Society—1874.
" Texas Medical Journal—August, 1874.
" Virginia Medical Monthly—October, 1874.

Editorial.

In the October Number of the JOURNAL we published, under the head of Correspondence, a communication signed "Regular," anent the matter of Ethics, which appears to have called out an answering echo in the mind of at least one of our readers, whose article over the signature of a "Country Physician—Regular" is published herein.

While we shall continue with much pleasure to publish to the world the opinions of our readers so long as they are within the bounds of reason, we must disclaim all responsibility for the same, directly or indirectly. The JOURNAL is simply the medium of communication for its correspondents, but endorses neither their ethics, logic, nor grammar. H.

Sanitary.

The Mortality Report for the month of September, published herein, exhibits a very gratifying aspect of the sanitary condition of the city. The report shows a decrease of 411 deaths in comparison with the mortality of the preceding month; and what is still more satisfactory, a decrease of 199 when compared with the list for the corresponding month of last year; this decrease occurring coincidently with an increase in the mean temperature of 4.3°, and likewise an increase in the population. This decreased mortality has been apparent in people of all ages, but principally in children under five years of age. The approaching cold weather will have the effect to still farther decrease the mortality.

Correspondence.

EDITORS CHICAGO MEDICAL JOURNAL:

Your correspondent who signs himself "A Regular," has struck a chord which shall vibrate through the land. It is the key-note of a coming reform. "You cannot eradicate quackery by such narrow-minded, unlogical restrictions as the code of ethics tries to force upon the regular physicians." So says "A Regular;" so say we; and so will say thousands of regular, true and good medical men all over this broad domain. From hundreds of hamlets, villages and towns, this word will come up to sustain "A Regular" in this his bold and manly assertion.

History tells every school-boy of Braddock's defeat, and how the brave young American soldier pointed out to him the true way of coping with the concealed and treacherous foe. The leaders and teachers of the "ethics" continue to illustrate the stupidity of Braddock, and they and we are constantly suffering the same defeats; worse than this, too, humanity bleeds, suffers and dies, because of this same stupidity. The many victims of disease are all about us; they plead for help; the cool, lying advertisement of the quack and charlatan promises them the wished-for boon. They accept of the proffered aid, take their nostrums and so-called "treatments," and—die, knowing of no "better way." And we, of a noble, humane profession, capable of being very angels of mercy to them, must stand with folded arms, silent and dignified, (?) bound by "the ethics." The dignity of "the profession" *must* be preserved, you know?!

COUNTRY PHYSICIAN—REGULAR.

Obituary.

FREEPORT, Ill., Sept. 28th, 1874.

At a special meeting of the Stephenson County Medical Society, convened at the office of Dr. Buckley, September 28th, 1874, to take action on the death of Dr. S. R. BUCHER, the following resolutions were adopted:

WHEREAS, we have been called to mourn the death of Dr. S. R. BUCHER, of Cedarville, a member of this Society;

Resolved, That in his death this Society has lost a most efficient member, and one intimately identified with its best interests; that the profession at large has lost one of its brightest ornaments, and our community a most useful citizen.

Resolved, That we believe his death was the result of too arduous labors in his chosen calling, and that he has added another to the long list of glorious martyrs who have given up their lives in the cause of suffering humanity.

Resolved, That while his family must most deeply mourn his loss, they have the consolation of knowing that the multitudes of sick and afflicted, whose sufferings his skillful hands have alleviated, and whose drooping hopes his encouraging words have cheered, will not soon, nor willingly let his name be forgotten.

Resolved, That we, as a Society, tender to the bereaved wife and orphaned family our heartfelt sympathy in this their hour of trial, trusting that the "Lord will temper the wind to the shorn lamb."

Resolved, That a copy of these resolutions be tendered to the family, and sent for publication to the journals of the city, and CHICAGO MEDICAL JOURNAL.

A. K. VAN HORN, *Secretary.*

Chicago Mortality Report for September, 1874. Reported by Dr. BEN. C. MILLER, Sanitary Superintendent.

MORTALITY IN MONTH OF SEPTEMBER, 1874.

Abscess	1	Atelectasis pulmonum	1
" lumbar	1	Brain, congestion of	8
" hepatic	1	" hyperæmia of	1
Accident, by burns	1	" hemorrhage of	1
" by explosion	1	" inflammation of	8
" by fracture of skull	1	" softening of	3
" by fall	2	Bronchitis	6
" kicked by horse	1	" capillary	2
" run over by wagon	1	Cancer	1
" by railroad	3	" of abdomen	1
" by street cars	1	" of encephaloid	1
" by shooting	2	" of liver	1
" by suffocation	1	" of stomach	2
" by drowning	7	Carbuncle on neck	1
Apoplexy	6	Childbirth	1
Asthma	1	Cholera infantum	210

Cholera morbus	1	Hydrocephalus	9
Colitis	1	Inanition	22
Consumption	53	Icterus	2
Convulsions	85	Kidneys, Bright's disease	2
Croup	3	" fatty degeneration of	7
" membranous	2	" inflammation of	2
Cyanosis	1	Laryngitis	1
Cystitis	1	Liver, disease of	1
Debility, general	11	" cirrhosis of	1
Delirium tremens	2	Lungs, congestion of	3
Diarrhœa	39	" gangrene of	1
" chronic	6	" hemorrhage of	2
Diphtheria	4	" emphysema of	1
Dropsy, general	5	" paralysis of	1
" abdominal	1	Manslaughter	2
Dysentery	16	Measles	1
Elephantiasis of leg	1	Meningitis	12
Enteritis	26	" cerebro-spinal	6
Entero-colitis	15	" tubercular	4
Erysipelas	1	Old age	8
Exhaustion	2	Paralysis	6
Fever, intermittent	1	Pericarditis	1
" scarlet	16	Peritonitis	5
" typhoid	33	" puerperal	3
Glands of throat, disease of	1	Pneumonia	11
" enlargement of	1	" typhoid	1
Gastritis	3	Pyæmia	1
Gastro enteritis	7	Rheumatism	1
Hemorrhage from abscess	1	" inflammatory	1
" internal	1	Scrofula	2
Hemorrhagica purpura	1	Small-Pox	1
Heart disease	5	Stomach, ulceration of	2
" hypertrophy of	1	Stomatitis	1
" organic disease of	1	Stricture of urethra	1
" ossification of	1	Suicide by laudanum	1
" rheumatism of	1	" by poison	1
" neuralgia of	1	" by shooting	2
" valvular disease of	5	Syphilis	1
Hepatitis	2	Tabes mesenterica	21
Hip, disease of	1	Teething	8
Hip-joint, disease of	1	Tetanus	1
Hernia	1	Whooping cough	14
Hydropericarditis	1	Total	809

Premature births, 14; Still births, 56. Total 70

COMPARISON.

Deaths in month of September, 1874	809
" " August, 1874	1,220
Decrease	411
Deaths in month of September, 1873	1,008
Decrease	199

AGES.

Under one year	327	Four years to five	11
One year to two	84	Five " " ten	29
Two years to three	26	Ten " " twenty	18
Three " " four	14	Twenty " " thirty	46

Thirty years to forty	50	Seventy years to eighty	13
Forty " " fifty	39	Eighty " " ninety	6
Fifty " " sixty	27	Ninety " " one hundred	--
Sixty " " seventy	19	Total	809

Colored	10	Males	445
White	799	Females	364
Total	809	Total	809

Married, 159; Single, 650. Total 809

NATIVITIES, SEPTEMBER, 1874.

Belgium	1	Ireland	49
Bohemia	5	Italy	1
Canada	5	Norway	7
Native—Chicago	119	Poland	3
Foreign, "	422	Scotland	2
United States, other parts	98	Sweden	2
Denmark	3	Switzerland	1
England	17	Wales	1
Germany	63	Unknown	9
Holland	1	Total	809

Deaths daily, 27. Mean temperature, 66.8°. Rain fall, 3.93 inches.

MORTALITY BY WARDS, SEPTEMBER, 1874.

Wards.	No. Deaths.	Pop. in 1872.	Percentage.		
1	4	398	one	death in	----
2	4	2,174	"	"	----
3	27	19,157	"	"	709
4	23	16,832	"	"	732
5	16	18,564	"	"	1,160
6	91	31,371	"	"	345
7	70	27,644	"	"	395
8	72	30,253	"	"	431
9	46	30,032	"	"	667
10	11	16,624	"	"	1,511
11	18	18,340	"	"	1,019
12	21	20,876	"	"	994
13	28	14,636	"	"	523
14	18	15,892	"	"	883
15	129	40,047	"	"	311
16	59	19,099	"	"	323
17	42	17,513	"	"	417
18	41	19,977	"	"	487
19	7	2,944	"	"	----
20	6	5,023	"	"	----
	733	Ratio of deaths to population in 1872, one death in 454⅓.			

No. deaths in Wards	733	St. Luke's Hospital	1
Accidents	21	Manslaughter	2
Foundlings' Home	22	Railroad Depot	1
Home for Friendless	1	Old Ladies' Home	1
Hospital Alexian Brothers	3	Suicides	4
Mercy Hospital	6		
County Hospital	13	Total	809
Hospital for Women and Child'n	2		

THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXXI. — DECEMBER, 1874. — NO. 12.

Progress in Medical Sciences.

ARTICLE I.—*Progress of Surgery.* By JNO. E. OWENS, M.D., Lecturer on Surgery, Rush Medical College, Chicago.

1. (*a.*) Oakum for Drainage. (*b.*) Deformity after Fracture. Reported by Dr. PERRY, House Physician at Bellevue Hospital. (*The Medical Record*, New York, August 1, 1874.)

2. Treatment of Varices by Local Application of Perchloride of Iron. By Dr. LINON, of Verviers. (*The Lancet*, *The Medical Record*, New York, August 1, 1874.)

3. An Unnatural Position of the Head a Cause of Death from Anæsthetics. By Dr. G. W. COPELAND. (*The Medical Record*, New York, August 1, 1874.)

4. Result of Billroth's Case of Extirpation of the Larynx. (*The Boston Medical and Surgical Journal*, August 27, 1874.)

5. Surgical Treatment of Empyema. By HENRY CLARKE, M.D. (*The Boston Medical and Surgical Journal*, August 20, 1874.

1. (*a.*) For the purpose of securing free discharge from the bottom of deep wounds, after operation for excision of the hip-joint, for instance, the use of oakum is advocated. It is claimed

that oakum will permit free discharge, and, at the same time, help to absorb it. It is regarded as of special importance in exsection of the hip-joint, to maintain firm compression about the wound, in order to give additional security against infiltration of the tissues with the discharge. This is best accomplished, after plugging the wound with the oakum, by covering the part with a thick layer of the same, and applying over all, with sufficient firmness, a roller bandage.

(*b.*) Deformity after fracture is very apt to occur, especially in the lower extremities, if the soft callus is not properly protected for some time after union has taken place. If supporting apparatus is not used when the patient commences to walk around, the soft material will commence to yield, and ugly deformity may result, much to the annoyance of both patient and surgeon.

2. Dr. Linon has used perchloride of iron, locally, with great success in the treatment of varices. The strength of the solution is two and a half drachms to eight ounces of water.

Compresses of flannel are steeped in the solution, then wrung out and applied by means of a flannel bandage, which is only moderately tightened. This application is to be kept on twenty-four hours, and, upon its removal, the surgeon will be much surprised to find that the venous dilatations have almost entirely disappeared. The applications are to be renewed, as above, during seven or eight days successively, after which time the bandage is to be kept on, without any further wetting, till it becomes loose. It is then to be wetted with the solution again, and applied until the varices have disappeared, which generally takes place after eight days or two weeks, according to the size of the swelling. Dr. Linon has been able to show that the success is to be attributed to the local action of the iron, and not to the compression.

3. Dr. Copeland's paper on the "Styloid Muscles and Anæsthetics," appeared in the Boston *Medical and Surgical Journal* of February, 1874. The cause of impeded breathing during anæsthesia was attributed to the action of the styloid muscles in closing the glottis. It was shown that the difficulty could always be relieved by simply tilting the head forward in order to relax these muscles, without making traction on the tongue. It is further

claimed (Philadelphia *Medical Times*, May 30) that death from chloroform and other anæsthetics is often caused by an unnatural position of the head, the latter being thrown back and the styloid muscles put upon the stretch. The author endeavors to show that all deaths from nitrous oxide gas, and a large number of those from other anæsthetics, have taken place while the patients were in a sitting position, which position would allow the head to fall further back than if they were lying down. Further, deep inspirations through the mouth rapidly inflate the lungs, but they (the lungs) as rapidly become emptied, leaving a long interval during which there is but little vapor in the lungs. Inhalations through the nose are recommended, since it requires a much longer time to inflate the lungs, and a much longer time to empty them, leaving no interval.

4. Upon the authority of the *Medical Times and Gazette*, the journal referred to in the index records the death of Billroth's case of extirpation of the larynx. The operation was performed on the 31st of January last, and death occurred July 7th. The cancer, the disease which necessitated the operation, reappeared locally soon after the return of the patient to his home.

5. Dr. Clarke reports five cases of empyema, treated by means of free openings, viz.:

CASE 1.—The puncture was made, with the small trocar of the Bowditch apparatus, in front, in the fifth intercostal space, midway between the axillary and mammary lines. Three pints of pus were pumped off. The patient improved for ten days. At the end of two weeks, however, he began to complain of increased oppression in breathing, to have more fever and perspiration, and the physical signs already indicated the re-accumulation of the fluid. The patient growing steadily worse, three weeks from the date of the first puncture, consent was obtained to make a free opening in the chest-wall. The point selected was the same selected for the former puncture. The opening gave exit to three pints of pus. A piece of soft linen was placed in the opening. The pleural cavity was washed, at first, with a solution of carbolic acid, one part of the acid to ninety-nine parts of water, and finally with one containing two teaspoonsful of liquid carbolic acid to

a pint of water and one ounce of glycerine. By May 12th, about two months from the time of the operation, the discharge having nearly ceased and become more serous, the opening was allowed to close, which it did almost immediately. The patient continued to cough for nearly two months longer, but at last made a good recovery.

CASE 2.—The patient was an inmate of the City Hospital at Worcester, and had been ill five months. An inflamed tumor, fluctuating and tender, supervened at the left lower lateral chest. During an attack of vomiting he felt something give way in the locality of the lump, and soon after coughed up pus in sufficient quantity to fill both the mouth and nose. On the twenty-third day after his admission, a free incision was made in the tumor. Pus discharged freely, and the pleural cavity was washed out twice daily with carbolic acid. After three or four days the patient was able to taste the acid at each injection. A harassing cough was almost immediately relieved, the breathing became easy, and in three weeks from the date of the opening the discharge had become quite small in quantity. June 14th, the patient (admitted May 22d) was allowed to return home. Soon after, the wound quite healed, and he made a good recovery.

CASE 3.—This patient was a scrofulous child, aged four and a half years. Suppurative pleurisy followed scarlatina. This little girl recovered from a very extreme condition, and nothing but the surgical treatment employed could have saved her life. Soon after the case came under Dr. Clarke's care, he was summoned in haste to find the patient in a convulsion. Subsequently her pulse was 160, and the temperature fluctuated very much, ranging from 100° to 106°.

On the twenty-second day of the illness, more than a quart of pus was withdrawn by aspiration, the patient being under the influence of chloroform. Relief was immediate; the temperature fell, the cough lessened, and the appetite improved. Improvement, however, continued only four or five days, and at the end of a week after the tapping it was decided to make a free opening in the chest, in the fifth intercostal space, between the mammary and axillary lines. Fully a quart of pus escaped. The cavity was washed daily with the following solution: A teaspoon-

ful of liquid carbolic acid and about an ounce of glycerine to a pint of blood-warm water.

Five weeks after the last operation, the discharge still being abundant, a solution of iodide of potassium, with tincture of iodine, was substituted for that of carbolic acid. The discharge then diminished more rapidly. Eight weeks from the time of the operation, the discharge growing quite thin, the wound was allowed to close. (We have not space for an outline of the other two cases. They all show the superiority of a free opening in cases of suppurative pleuritis over all other means of treatment. The improvement gained by tapping and by aspiration, is short-lived. Treatment by a free opening is curative.)

Reports of Societies.

Chicago Society of Physicians and Surgeons. *Transactions at Regular Meeting, Monday, Oct.* 12, 1874. Reported by RALPH E. STARKWEATHER, M.D.

Dr. Bartlett, President, in the chair. After the usual preliminaries. Dr. Steele read a paper, which was a report of a case of pneumatic aspiration of the pericardial sac, by Dr. Johnson, at the Cook County Hospital.

The following is a synopsis of the report:

The patient was a German laborer, forty-five years of age, and in good health previous to August last. Early in that month, while employed in a saloon, he went into an ice cellar, when sweating profusely, to cool off. Several slight chills followed, accompanied by severe cramping pains in back and left side, over the region of the heart. A deep inspiration aggravated the pain; there was no cough; appetite was impaired; bowels costive; breathing labored. At the end of a month, he had convalesced, and began work as a cook. He exposed himself again to sudden changes of temperature, and slept in a damp basement. Another attack similar to one above mentioned set in, with cough and expectoration of white frothy sputa, the breathing becoming more frequent and labored. Has been a moderate drinker for a number of years; family history

devoid of tuberculous taint; never had syphilis, nor rheumatism. Condition on admission, September 22, 1874: Patient is a large, well nourished man; decubitus on left side, shoulders elevated, thigh flexed on abdomen. The breathing is hurried and laborious; face anxious and cyanotic; skin cool and moist. Pulse 132, small, thready and irregular; respiration 28 to the minute; temperature, little less than normal.

PHYSICAL EXAMINATION.

Inspection.—There is a bulging of left chest and precordial region; epigastric protrusion; partial obliteration of left intercostal spaces, and decided loss of motion in left chest. Heart communicates no thoracic shock.

Palpation.—There is an absence of vocal fremitus in left chest, anteriorly, while, posteriorly, the fremitus is exaggerated.

Percussion.—There is complete dullness in left chest anteriorly over a somewhat irregular triangle, of which the base would correspond with a transverse line drawn from left axillary region three inches below left nipple, to a point two inches to right of the xiphoid appendix. The apex of the heart is at a point about five inches above, and one and a half inches to right of left nipple. The dullness was but slightly altered by postural changes.

In the right chest, the resonance was slightly increased.

Auscultation.—Below the third rib there was absence of all lung sounds of left lung. * * * * Posteriorly occasional fine crepitant rales, and friction sounds. In the cardiac region, there were no heart sounds. There were a few to and fro pericardial friction sounds.

The diagnosis was, acute pericarditis, with a large serous effusion.

The operation of pneumatic aspiration was done by Dr. H. A. Johnson. The patient being placed in a sitting posture, a fine canula, connected with a vacuum, was introduced into the fifth intercostal space, two inches to the left of the sternum, and carefully carried inwards, upwards and backwards, till it had penetrated the thoracic walls about two inches; a few drops of bloody serum escaped; about one ounce was removed, and the canula was withdrawn. Probably the canula entered a little pouch or pocket formed at the base of the pericardium by plastic lymph, and did not enter the main collection of fluid.

The immediate effect of the aspiration was to quicken and strengthen the circulation as determined by the radial pulse. The heart continued intermittent.

September 24. The patient felt better and could breathe more easily. Four days later a pleuro-pneumonia of the left chest set in, and increased the gravity of the symptoms. September 30. After a consultation of the attending physicians, it was determined to again perform aspiration as a *dernier resort.* A fine canula was introduced, near the point of previous puncture, in a similar direction and a little higher than before, till the point had passed into the chest about two inches, when on turning the stop cock the skillful operator was rewarded by seeing a full stream of bloody serum flowing from the pericardial sac into the receiving bottle. Eleven and one-half ounces were withdrawn, without the occurrence of a single unpleasant symptom.

The immediate effect of the operation was to relieve the turgescence of the superficial vessels, and steady and strengthen the heart's action; the breathing became easier, and the apex beat of the heart could be seen, for the first time, striking a little to the left and higher than normal; the cardiac sounds were distinctly heard. The bulging of the intercostal spaces was not so marked. Half an hour after the operation, the pulse was one hundred and thirty-two (132); respiration, twenty-eight (28) per minute.

October 1. Pneumonia more extensive, extremities cold; radial pulse imperceptible; general cyanosis; delirium and death 1 A.M., October 2d.

Dr. Steele then exhibited to the Society the heart of this patient, and demonstrated the points of entrance of the needle into the sac. He gave the following details of the post mortem examination made on the day of the death. The entire body was cyanotic—the pericardium was immensely distended by fluid, occupying nearly the whole anterior portion of the left chest, overlapping the right lung for two or three inches. Diaphragm depressed; moderate pleuritic effusion in both chests. On opening the sac, it was found much thickened and congested, and contained about one hundred ounces of bloody serum. The point of the second puncture was readily seen; that of the first puncture had closed by adhesive inflammation. The heart was hypertrophied, dilated, apparently inflamed; its right side distended with venous coagula; the entire

surface of the heart was covered by a tenacious coagulated lymph, arranged in segregated layers, varying in depth from one-half to one inch, so firmly adherent to the walls of the heart as to be with difficulty removed. The pericardium was adherent to the heart, around its base, by means of this plastic deposit. Left lung throughout was in the stage of red hepatization—quite friable, and firmly adherent to chest walls by recent pleuritic adhesions. The right lung was congested; kidneys healthy. * * * *

In commenting upon the case, Dr. Steele said that no heart sounds were heard till after the second tapping; but that the valves were probably not diseased; the heart itself was not weighed, but the weight of heart and its sac was probably four pounds. The patient when in health weighed one hundred and seventy pounds, and was five feet eleven inches in height. Before operating, the patient was advised fully as to the operation, and that it was only expected to give temporary relief; that in itself the operation was not curative. A needle, a little larger than the one used in a hypodermic syringe, was employed.

In reply to an inquiry by Dr. Merriman, it was stated that the patient had never had rheumatism, but had been a large healthy man, until three months ago.

Dr. Hamill expressed some doubts as to the advantage of aspiration, or its expediency. If there is absorption or removal of the fluid, may there not then be such adhesions as to hasten death?

Dr. F. H. Davis asked whether there was any effusion into the pleural cavities, and Dr. Steele said that there were twenty-five to thirty ounces in each cavity, the latter amount in the right chest.

Dr. F. H. Davis. It seems as though there might be one chief danger in this operation, the liability of the puncture to allow a dribbling of the fluid into the pleural sac, and produce a pleurisy or perhaps pneumonia; of course, the character of the fluid effused would determine this question—if it were purulent, the result might be different.

One of the members called attention to the fact that this patient, from the history given us, seems to have had a *primary* and *idiopathic pericarditis*, which is certainly very rare; at the time of death, it was not solitary, for there was double pleurisy and a pneumonia. In the morbid specimen, he saw no deposit of lymph upon the parietal serous surface; the cardiac portion of the sac

was everywhere thickly covered by the exudation. He then alluded to the gravity and rarity of the operation, and its success.

Dr. Hyde. So far as known, this operation is the first one ever done in Chicago, and must have required the courage if not the audacity which that other great physician (Trousseau) exhibited, who boldly plunged the needle into the pericardial fluid, long before Dieulafoy had established the present method and processes.

A discussion then ensued between Drs. Simon, Merriman and Hyde, as to the probable reason why the fluid that had been drawn off was bloody, and also as to the diseases men exhibit who follow the ice business.

Dr. F. H. Davis read several interesting reports of cases in his clinic. One was a case of nasal catarrh. Another a case of functional disturbance of the heart, due to nervous shock caused by a fall. A third case was one of congenital malposition of the heart and absence of the sternum in a young boy, with tubercles in the apex of either lung.

The President reported a case of cerebro spinal meningitis, which proved fatal, in which were numerous curious features simulating hydrophobia. The discussion of this subject, including rabies, was animated and exhaustive.

Dr. Hamill reported a case of abortion with retained placenta, in which he used full doses of ergot for twelve hours, without effect. He then exhibited the fluid extract of *actea racemosa*, forty drops every two hours; the secundines were expelled in six hours; the medicine seemed to act on the body of the uterus, producing tonic contractions. He preferred it rather than ergot. He had been called to the case two days after the abortion took place.

Several members related cases much resembling the one given with like experience, and expressed the opinion that the use of ergot in the third stage of parturition was, at least, very questionable, and inexpedient.

Dr. Merriman was appointed by the President to prepare a paper to be read at the next meeting, upon the management of the third stage of labor.

At a late hour the Society adjourned.

Transactions at Regular Meeting, October 26, 1874.

Dr. Bartlett, President, in the chair.

After the reading of the minutes of the previous meeting, the name of Dr. R. L. Leonard was favorably reported to the Society by the Board of Censors and received a unanimous election. The Society listened to the reading of a translation from the German, of Drs. Kundrat, of Vienna, and Englemann, of St. Louis, on the Microscopical Appearances of the Uterine Mucous Membrane, made and read by Dr. Von Mansfelde. At its conclusion, a vote of thanks was carried, but owing to the length of time occupied by the reading of the paper, upwards of two hours, its discussion was deferred.

Transactions at Regular Meeting, November 9, 1874.

Dr. Bartlett, President, in the chair.

After the usual preliminaries, a motion of suspension of the rules was carried, in order to receive a communication from a committee of the Chicago Medical Society in regard to a joint donation of money, in temporary support of the widow and young son of a physician who had died soon after the great calamity of 1871. The subject was referred to a committee, to report at the next meeting.

Dr. Etheridge, a member of the Section on Materia Medica and Therapeutics, presented a very full report, including translations and various interesting items from recent publications.

Attention was first called to the new Brazilian sudorific and sialagogue, *Jaborandi.*

This is a South American product; the leaves and small twigs are the parts of the plant used. The leaves have an odor and a bitter taste, but do not appear to have any alkaloids. Sixty to ninety grains of the leaves and twigs may be infused in a cup of water. "When taken, a drenching perspiration, or, more properly, sweating, lasting four or five hours, necessitating several changes of clothes, will follow. At the same time an abundant salivary and bronchial secretion supervenes, which may even exceed two pints in quantity."

The amyl hydride was exhibited to the Society, and was considered to be innocuous when applied to the skin or mucous mem-

branes. If swallowed, it is quickly converted into vapor. It is remarkable solvent. A solution containing one scruple of iodine to the ounce of amyl hydride is very simple, painless and effective when applied to bad smelling sores, ulcers, wounds, and to cancer. A very quick disinfectant.

Common oils, spermaceti, and other similar oily substances, make ready solutions in amyl hydride. Burns may be treated with success by using such a solution.

After explaining the mode of making the nitrite of amyl, and exhibiting a sample thereof, it was described as diminishing arterial blood tension, as though the vaso-motor nerve supply were paralyzed or cut off It is a remedy indicated in all cases of cerebral anæmia; in epilepsy, when due to that cause. If employed for this purpose, it should be given at the commencement of the attack, by inhalation of three or four drops placed in a small vial. In syncope, hemicrania and chloroform narcosis, amyl has been of benefit.

A case reported by Dr. Jenks was cited, of puerperal eclampsia, successfully treated by the nitrite, before and after labor, administering two or three drops by inhalation.

Passing next to the subject of carbolic acid hypodermic injections, several cases lately reported were cited, in which results very surprising and satisfactory had been attained. In all forms of parenchymatous inflammation it is an active antiphlogistic. The insertion should be made where the lymphatics bring the acid in direct contact with the inflamed tissue. The strength should be two per cent. of pure acid, in water. A solution of one per cent., the injections being repeated four or six times, afforded relief in two cases of erysipelas.

Fissures in Ano, treated with Iodoform.—As a local anæsthetic, it allays the spasm of the sphincter during defecation, while it favors cicatrization by neutralizing the irritating effects of fæcal matters which may remain on the ulcerated surface. It is used as an ointment, one part to three of lard, applied (twice daily) on a small piece of charpie. Cure may be expected to follow within twenty days.

Bromide of Potassium.—This salt has been employed by Dr. Bernard, in Algeria, in the treatment of engorgements of the spleen, due to intermittent fever. Complete resolution may be secured,

the treatment being rarely prolonged beyond thirty days. Hypertrophies of the liver yield just as readily, or at least are very much improved. The dose of the bromide is fifteen grains daily, in one potion, in an infusion of orange leaves, etc., for fifteen to twenty days. In one case, however, during ten days, forty-five grains were given daily, in one potion, followed by cure.

An article by Dr. Chauppe, on "The Experimental Study of the Action of Ipecac," translated by Dr. Etheridge, was then read. It discussed the action of ipecac in arresting diarrhœa. At a former meeting an article upon its employment in phthisical sweats had been read.

No attempt will be made to give an abstract of this most valuable paper, partly on account of its length, but chiefly because the argument and details would be injured by being at all abbreviated.

Dr. Simons reported, verbally, a case of compound comminuted fracture of the right parietal bone, complicated by the protrusion of at least a half ounce of cerebral matter. The patient was a boy, of the age of three years. Half an ounce of the brain matter and a piece of bone one-half by three-fourths of an inch in size, were removed. The depressed bone was elevated; the lips of the scalp wound were united by sutures. At no time has there been loss of sense, sensation, intellection or motion. The boy is doing well, at the present time, four days after accident.

Dr. Hollister narrated a similar case that had occurred in his practice a number of years ago. The patient was a boy, twelve years of age, who had been kicked by a horse. There was a crucial fracture of the parietal bone near the frontal bone; the meninges were lacerated; the brain substance broken up, of which six drachms were lost. A piece of the parietal bone, one and one-half by one and three-fourths inches, was removed. The wound was closed, and compresses applied. Recovery was perfect. He never lost consciousness, nor was there failure of the mental powers. He was, however, pretty irritable in temper for a short time.

The motion to reconsider the vote adopting the report and resolutions offered at the last meeting, concerning the relations between physicians and pharmacists, was taken from the table, and, on motion, was laid upon the table indefinitely; thus sustaining the endorsement of them made by the previous meeting.

The Society then adjourned.

Hospitals.

Cook County Hospital. Surgical Clinics. October, 1874. Service of Prof. EDWIN POWELL. Reported by Dr. F. C. WINSLOW, Assistant Physician.

Popliteal Aneurism, (cured by digital compression in twenty-four hours.)

CASE 13,644. George M——; Frenchman; aged 38; painter; admitted October 7, 1874. The patient says he always enjoyed excellent health until five months ago, when he began to have a feeling of stiffness in the right leg and knee. While working, he spent a good deal of time standing upon ladders, or was frequently engaged carrying heavy weights up or down. When not busy, it was his custom to throw himself down upon the grass and sleep, thus exposing himself more or less to cold and damp. He continued his work—the stiffness gradually increasing—until about a month ago, when he felt a dull pain in the hollow of the knee. This was accompanied by a swelling a couple of inches in length, and about the size of an earth worm, in the right popliteal space. For the past month the swelling has steadily increased, and the enlargement has been particularly rapid during the past week, the pain, meanwhile, becoming more severe in character. He supposed he had rheumatism, and, in fact, has received liniments, ointments, pills, and kindred medications, at the hand of different doctors both for rheumatism and sprain of the knee.

He is a hearty looking, well nourished man. The appetite lately has been poor; bowels costive; complains of pain in none of the joints except the right knee, and there it is all referred to the popliteal space.

On examination, find an ovoidal tumor larger then a hen's egg, occupying the right popliteal space. It is elastic; pulsates freely in all directions; is smooth and sacculated; the skin glides freely over it, and the superficial veins are enlarged and turgescent. Auscultation reveals a harsh *bruit* all over the tumor, and up the artery as far as Poupart's ligament, while the pulsations of the tumor are entirely controlled by pressure upon the femoral artery.

Remarks. After giving a history of the case, the symptoms, diagnosis, prognosis, etc., concerning the treatment, the Prof.

said: It was formerly the practice in treating such tumors, to cut down into the sac, turn out the clots, and ligate the open mouths of the vessel to control the hemorrhage. Such a procedure was almost sure to be followed by a secondary hemorrhage, which proved fatal to the patient. Deligation of the artery on the cardiac side of the tumor generally resulted in a radical cure, but as there was always the possibility of violent inflammation, gangrene, or secondary hemorrhage, it was advisable to try milder means first. He then explained instrumental and digital compression, and the physiological cure effected by these methods. He spoke of forced flexion, and said that in the present case that method would be tried first, and in case it proved unsuccessful, digital compression would next be tried.

October 9. At 4 P. M. the leg was firmly flexed upon the thigh, and confined by a broad strap of adhesive plaster. The thigh was then gently flexed upon the abdomen, and the knee supported by pillows. At 6 P. M. this had become quite painful to him, and morph. sulph. gr. $\frac{1}{8}$ was administered. It was evident that he could not bear the flexion much longer, and accordingly nine men were selected to control the circulation of the femoral artery by making digital compression just below Poupart's ligament, each man to maintain pressure twenty minutes.

At 7 P. M. the compression was begun, the adhesive strap being removed, and the leg extended in an easy position. Pulse, at wrist, 66, and full. At 8 P. M., pulse 68; patient a little restless; morph. gr. $\frac{1}{8}$. At 9 P. M., pulse 72, and full. At 10 P. M. pulse 76; patient easy. At 11 P. M. pulse 76; pressure kept up continuously; he experiences no inconvenience. At 12 midnight, pulse 72, and good; complains a little of cramping; otherwise feels well; leg a little œdematous, and veins somewhat swollen; tumor has a firmer feeling.

October 10. At 12:30 A. M. morph. sulph. gr. $\frac{1}{8}$. At 1 A. M. pulse 72; complains a little of the pressure; tumor feels harder, and pulsations are obscure. There is numbness of the leg, and a decrease of temperature.

At 2 A. M. pulse 72; feels easy. At 3 A. M. pulse 78; comfortble. Sensation is gradually returning from above downwards, and is in exact proportion to the temperature. New vessels can be felt pulsating on the anterior aspect of the knee.

At 4 A. M. pulse 72; still comfortable. A single thickness of soft muslin is interposed between the fingers and the integument. Assistants observe that half the force required at first is now sufficient to control the circulation.

At 5 A. M. pulse 66; feels pretty well. At 6 A. M. pulse 66; patient has slept more or less the last three hours.

At 7 A. M. pulse 72. On removing the pressure only an obscure pulsation is felt at the seat of the tumor. At 10 A. M. pulse 80; very comfortable. At 12 noon, pulse 80; no pain or cramps. Takes beef tea freely. At 4 P. M. pulse 72; nothing can be heard with a stethoscope.

At 7 P. M. there is no pulsation in the tumor, nor does extension of the limb reveal the slightest vibration. Pressure is discontinued twenty-four hours and twenty minutes from its inception.

The patient is in excellent condition; has a little pain in the calf of the leg, and slight tenderness of the integument at Poupart's ligament. The limb is gently flexed, supported by a pillow, and left to itself.

October 11. Feels pretty well; some pain on extending the leg.

October 12. Comfortable.

October 17. Patient up and around the ward.

Thanks are due to Mr. Fredericks and Mr. Mallory, students at Rush Medical College, for assistance rendered in this case.

Double Fracture of Lower Jaw—Treatment of Chronic Ulcers—Bursa Patellæ—Adulterated Bismuth Subnitras—Necrosis Humerus—Injury to the Skull—Crushing Injury to the Lower Extremities—Retention of Urine.

I. DOUBLE FRACTURE OF LOWER JAW.—The bone was broken on the right side, just anterior to the angle and on the left side, at a point midway between the angle and the symphysis, the fragment being displaced downwards and backwards. A loop of annealed iron wire was passed around the superior central incisor and the ends twisted together. The corresponding tooth in the lower jaw was treated in a similar manner, and by means of these loops the teeth were approximated, and retained in position by twisting the ends of the wire together. External support was afforded by means of a gutta percha splint, moulded to the chin,

and well padded, being confined by several turns of a roller under the jaw and over the vertex.

II. TREATMENT OF CHRONIC ULCERS.—From half a dozen to a dozen and a half free incisions are made, extending from the edge of the ulcer outwards through the region of deficient circulation, marked by a bluish circle surrounding the ulcer, and down through the skin and cellular tissue. The operation is followed by immediate relief to the congested and constricted vessels, the discolored circle disappears and granulations spring up freely over the indolent surface.

III. BURSA PATELLÆ.—The bursa was punctured and the liquid evacuated. Pressure was maintained by placing a dry sponge over the bursa, and confining it in its place by a few turns of the roller. Afterward the sponge was moistened, and by its expansion kept up a steady and uniform pressure until the tumor disappeared.

IV. ADULTERATED BISM. SUBNIT.—The patient was suffering from an extensive burn of the leg. Bism. subnit. was dusted thickly over the open surface and covered with dry lint. In a few days symptoms of metallic poisoning exhibited themselves; the patient complaining of increased pain at the seat of the of the injury; a metallic taste in the mouth; a blue line being plainly visible upon the gums, and the cheeks were the seat of numerous small ulcers. The bismuth was tested and exhibited the presence of lead in large quantities. The dressing was immediately discontinued, and marked improvement in the condition of the patient followed the substitution of a dressing of simple cerate and the internal administration of potas. iodid. in doses of grs. x. three times daily.

V. NECROSIS HUMERUS—REMOVAL OF DISEASED PORTION—DRESSING, ETC.—The case is that of a young man; a teamster. The affection came on spontaneously, a year ago. The arm is at present the seat of numerous sinuses leading down to the bone. An opening, six inches in length, was made on the outer aspect of the arm down to the humerus. Here a sort of a pocket was found containing a number of fragments already exfoliated. These were removed and the sides of the cavity scraped clean.

The wound was then packed with cotton, wet in a solution of ac. carbol. For the better cleansing of this cavity, the cotton is removed twice daily, and a stream of carbolated water directed upon the granulating surfaces, through the nozzle of a fountain syringe.

VI. INJURY TO THE SKULL—CONTINUOUS CEPHALALGIA—CURED BY THE TREPHINE.—The patient is a laborer who, while engaged in chopping down trees, was struck on the head by a falling limb. He was rendered temporarily insensible, but on recovering conciousness exhibited no paralysis, or other evidence of severe lesion. Since this time, however, he has been unable to work on account of constant pain in the head, less severe in the morning, but growing more marked in the evening, and at night, and greatly increased by stooping or lifting.

A well marked depression can be felt at the seat of the injury. A semicircular flap of integument was lifted from the bone, and the trephine applied. The dura mater was found roughened and thickened. No bad symptoms followed the operation, and for three weeks no pain has been experienced.

VII. CRUSHING INJURY OF THE LOWER EXTREMITIES—DOUBLE AMPUTATION, ETC.—The man was brakesman on a freight train, and was brought in with both feet crushed by the wheels of a car. In such cases the injury to the bones and soft parts is usually much greater than the external appearances would indicate, therefore it is always advisable to go at least six inches above the seat of the injury in order to preserve the integrity of the flaps.

Esmarch's bandage was applied, and the circular operation performed. The flaps were only closed at the upper half of the wound, leaving the rest open for free drainage. The stumps were lightly dressed with patent lint, moistened with water slightly carbolated. The subsequent progress of the case has been excellent.

VIII. RETENTION OF URINE WITHOUT STRICTURE, OWING TO ENLARGEMENT OF THE MIDDLE LOBE OF THE PROSTATE GLAND.—The patient is an old man who is totally unable to empty the bladder. The ease with which a number twelve sound

passes into the bladder, excludes the presence of stricture, while with the finger in the rectum we fail to find sufficient hypertrophy of the entire prostate to cause retention. We therefore conclude that this is a case of retention caused by hypertrophy of the middle lobe of the prostate. This condition manifests itself by the presence of a small conical projection into the bladder, situated just behind the opening into the urethra. This body acts in the same manner as a valve, and by the constantly accumulating urine, is crowded down over the urethra, effectually preventing the emptying of the viscus.

The treatment of such a case consists in carefully instructing the patient to pass a catheter upon himself at regular intervals of six or seven hours. By this means, and by correct hygienic measures, the patient may often pass many years in comparative comfort.

SURGICAL CLINIC. Dr. POWELL. October 13. Reported by RALPH E. STARKWEATHER, M.D. *Popliteal Aneurism of the Right Leg—Treatment by Flexion—Treatment by Digital Compression, and cure in twenty-four hours.*

Remarks.—No particulars as to size or location of the tumors were given. The leg had been much swollen and the knee enlarged; the lateral expansion had been considerable; the pain had been constant and severe. The first method employed in this case was by flexion, the limb being strapped. This was continued three hours, morphine being given to lessen pain. The man was unable to endure the treatment. Pressure on the femoral artery by relays of assistants was then ordered, and continued uninterruptedly for twenty-four hours and twenty minutes.

There was not much change in the tumor for the first six hours of pressure; it then began to harden. The cure is complete. There is now no pulsation; the size of the knee is reduced one-third. The tumor is very hard—a mass of consolidated fibrine, which will disappear in from four to six months.

During the past three years I have had seven cases of aneurism, of which five have been treated by digital compression, successfully. It is a method free from danger, and one of comfort and relief to the patient. I have never had a perfect cure when treating by flexion, though in some cases it has been kept up seventy hours. In the treatment by ligature there is danger to a certain

extent, and you have a wound which may keep open three or four weeks.

Drawing horse-hairs through the sac, or small, fine wires, is another method of treatment; but in this there is danger of suppuration. If digital pressure were to fail, the galvano-cautery, or injection of ten to thirty drops of the liq. ferri persulphatis, might be effective.

Clinics.

Rush Medical College. Diseases of Brain and Nervous System, by Dr. WALTER HAY. Reported by HENRY L. HARRINGTON.

Case of Progressive Locomotor Ataxia.

Man, aged 45; laborer. States that he has been in the habit of working along the docks, and has been much exposed to cold and wet. Was well until about one year ago, when he began to have pricking and tingling sensations of the legs and feet, also sharp darting pains in the same limbs. He soon found it difficult to walk; could not control his movements; could not walk well in the dark; was unable to stoop over and wash his face without falling; felt all the time as if he was standing on pincushions; he has continued growing worse until the present time.

On examination, find patient well nourished; appetite good; bowels constipated; does not urinate easily; sleeps well. Patient is unable to stand with his eyes shut, and his feet close together; in walking extends his legs powerfully, but irregularly, and brings the foot down with a slapping motion, the heel striking first; keeps his eyes fixed constantly upon his feet when walking; all his motions are unsteady and irregular; when sitting down he can move his legs with ease in all directions; has lost no muscular power. There is anæsthesia of the soles of his feet; special sensation unimpaired; intellection good. He was ordered—R. Fluid ext. secale cornut. dr. j, at bedtime.

Remarks. This, gentlemen, is a disease which has its seat in the posterior columns of the spinal cord. It is essentially an inflammation of the connective tissue, resulting in hypertrophy

and induration of that tissue, and consequent atrophy of true nerve tissue, fibres and cells. The manifestations of the disease are due to the fact that impressions received by the peripheral nerves of sensation are not transmitted to the brain, but are intercepted in the posterior columns at the seat of disease. It is due to this fact that the patient is unable to co-ordinate muscular movements without keeping his eyes constantly fixed upon his limbs. Prognosis is grave; the progress of the disorder may be arrested for a time, but almost certainly returns, and progresses to a fatal issue. Its average duration is from two to five or ten years. The indications for treatment are to diminish the supply of blood to the cord, which is well fulfilled by ergot.

Two Cases of Chorea.

CASE I. Girl, aged 10. The mother states that she has suffered from irregular twitchings of the muscles for eighteen months. She has had great difficulty in eating, dropping or spilling whatever she was conveying to the mouth; cannot walk well; falls frequently; is very irritable, crying from slight causes.

On examination, find patient very anæmic and poorly nourished; skin cool; tongue pale; conjunctivæ pearly; appetite poor; bowels costive; sleeps poorly. The child cannot sit still; her hands and feet twitch irregularly; also the muscles of the face and eyes. Ordered—R. Ferri et quiniæ citratis, gr. ij, strychniæ sulph. gr. $\frac{1}{60}$, three times daily.

CASE II. Boy aged 7. Mother states that he was well until three weeks ago, when a window fell upon his hands, frightening him very badly. Ever since, he has been troubled with irregular involuntary motions of both arms and legs; has to be fed, as he drops his food; cannot walk well; appetite good; bowels regular; sleeps well. Patient is quite anæmic, though not emaciated. Ordered—R. Strychniæ sulph. gr. $\frac{1}{60}$, three times daily.

Remarks. These are examples of a disease which is due, in these as in most cases, to debility. There is an impoverished condition of the blood, and consequently deficient nutrition of nerve centres. As a result of this, there is an irregular supply of motor power, to which is due the irregularity of muscular contraction. The prognosis is favorable, usually, about three months being required to effect a cure.

The indications are to increase general nutrition. To accomplish this we give good diet, and tonics, such as iron and quinine; also strychnia, which is one of the best nerve tonics we possess. It aids materially in the management of these cases to have the patients practice rhythmical motions, such as would be necessary in jumping the rope, rolling the hoop, crocheting, etc.

RUSH MEDICAL COLLEGE CLINIC. Dr. GUNN. September 12, 1874. Reported by RALPH E. STARKWEATHER, M.D.

Abscess in the Right Tibia.

This patient, a little girl of eight years of age, exhibits a rare form of disease, one of interest to the surgeon, namely, abscess of bone. It usually is very insidious in its onset, and not easily traced to any injury. There is, in the first place, great swelling; then pain, very severe and paroxysmal. This pain may be absent for months, and then return to torment the patient for days. Often the pain, more or less acute, will last for a year or longer, frequently being more distressing at night. The abscess may be greatly disproportioned in size and amount to the bone tumor and constitutional suffering; there may be a very small cavity, containing a few drops of pus.

As to the treatment, when there is evidence of pus, the only course is to open the bone and evacuate the pus, by incision or trephine. If there should be reason to suspect a syphilitic taint, you will do wisely to wait and exhibit the potassium iodide.

Hare Lip.

In this patient, a puny infant, the soft palate is fissured, but neither the bony arch nor upper lip is fully cleft In regard to operating, my rule is, when the child is strong and vigorous, and from four to six or eight months of age, to operate. Babies, as a rule, bear the loss of blood with great difficulty. In the case before you, I shall decline to interfere, because of the bad general condition of the baby. The operation should be done, in children, before they fall into bad habits of speech.

OCTOBER 10.

Amputation of the Right Thigh—Esmarch's Bloodless Method.

The limb was removed because of extensive caries of the whole of the tibia, the patient, a man fifty-three years of age, having

gradually emaciated from the excessive suppuration, continued through several years, till surgical relief became imperative. Dr. Gunn was assisted by Drs. Parkes, Owens, and Starkweather. The elastic bandage was applied very tightly below the point of discharge, but lightly over the wound, in order that no blood loaded with the partly decomposed material, might be crowded into the general circulation. Ether was administered by Dr. Parkes. The operation was by lateral flaps, at the middle of the thigh; the outer flap was first made, then the one on the left side. A roller quickly applied retracted the soft parts, and the femur was then sawn through.

Length of time of operation, fifty-five seconds. Less than two ounces of blood were lost. Three principal ligatures were made. Four sutures, on either side, were made, allowing the centre of the wound to remain patulous. Dr. Gunn said that this would facilitate the after management of the case. Formerly, the wound used to be closed up, and an attempt made to heal by first intention; but the failures were too numerous, and inflammation too constant, to warrant this being longer done. During the civil war, most of the cases at Nashville were lost by pyæmia on the second day after amputation, when the wound has been closed up. The practice was changed, and the wound allowed to gap wide open. A T-bandage and water dressings were the only dressing, and then the cases did well.

Selections.

Homicide—Suspected Simulation of Insanity. By I. Ray, M.D.

No matter connected with insanity makes a larger draft on the resources of the expert, than the task of deciding correctly in some cases of suspected simulation. This might naturally be expected where a sane person is performing his part with all the ingenuity and cunning which a life of criminal habits is apt to develop; but the difficulty is often none the less where the manifestations are very demonstrative and genuine; and the reason is, that however these may conflict with the results of one's own observations, no one profoundly impressed with a sense of the infinite diversity of nature, even in her wanderings, will be in

haste to conclude that they are, on that account, simulated. And the chances of reaching a correct conclusion are not increased by the disposition of the expert to forget that, in the very act of guarding against the deceptions of the patient, he is very apt to deceive himself. To add to his embarrassments, the opportunities for testing the mental condition may be very limited and quite unsuitable. A few interviews with the party in his cell, with such information as attendants may give, furnish, perhaps, the only materials with which he must construct his final opinion. That they are often insufficient to warrant any stronger conclusion than a guess, is precisely what might be expected, and the fact does no discredit to the sagacity of the expert. And yet this is not incompatible with the other fact, that under the surveillance of a Hospital for the Insane, the true character of a suspicious case cannot fail, at last, of being correctly understood by any one of considerable clinical experience and tolerable sagacity.

I have thought the following case worth relating, because it presents a rather unusual combination of traits, and, for that reason, may convey some useful hints to future observers.

In March, 1871, Michel Trimbur, with two or three other young men, was convicted, in one of the courts of Philadelphia, of a heinous outrage upon a young woman, and sentenced to fifteen years imprisonment in the Eastern penitentiary. He was of Irish parentage, about twenty-two years old, of rather small stature, and with a countenance indicative neither of stupidity nor ferocity. The crowded condition of the prison rendering it necessary, to some extent, to put two in a room, T. and one of his associates in crime were assigned to the same room, with their mutual consent and satisfaction. And up to the last, they seemed to be on the best of terms with each other. On the morning of the 7th of May, 1872, when the keeper went to their cell with their breakfast, Michel said very quietly that Webb would not need any. On inquiry, Webb was found on the bed quite dead, with his head badly bruised. Michel immediately confessed that he killed him while lying in bed, with the board used for closing the ventilator. When asked how it happened, he said he rose early, and struck Webb on the head, several times, he making no resistance. When asked for his reasons, he admitted that they had had no quarrel, but said that Webb had frequently abused his (T.'s) mother, and he would not allow anybody to do that. Neither then nor subsequently did he express any sorrow for what he had done.

Previous to his trial for this second crime, his counsel requested me to ascertain his mental condition, as there was some reason for suspecting that T. was crazy. The officers of the prison where I went for this purpose, informed me that no indications of insanity, before the murder, had been noticed by any one, and that they first heard of it some time afterwards. On being asked what they had heard, I was told, that while passing from one part of the prison

to another, he looked upwards and said to the keeper, "O, what bright thing is that up there?" meaning the sun; and also, that having made considerable noise during the night, he was threatened with some privation if he persisted in it, and accordingly he became quiet from that night forth. The officers regarded these two manifestations as mere make-believe, and had no faith in his pretended insanity. During my first visit, which was over one hour long, we conversed about the circumstances of his two crimes, about his family, his education and employment, and about ordinary affairs and topics in which he might be supposed to be interested, and while he talked freely, without the least reluctance, not a word fell from his lips that could excite a suspicion of insanity. Though not particularly deficient in understanding, he had obviously received but little education, had no regular employment, and his social surroundings had been of a pretty low order. He gave the same account of the murder which he did at first, and without any sign of regret. Of the first offense, he then and always subsequently declared his innocence, and there was some reason to think, that in this he spoke the truth, his only offense being that of keeping bad company.

A few days afterwards, I made him another visit. For some fifteen minutes the conversation was very much like that of the previous visit. Then he rather suddenly went to the farther side of his cell, and took from a shelf a cheap card photograph of a child, or young girl, which he brought to me, his whole manner exhibiting a sort of earnestness which I had not observed before. This, he said, was his mother, the Virgin Mary, and forthwith he launched out into a stream of talk, consisting of wild, strange, incongruous notions, connected by no obvious bond of association. In this jumble of matter, in uttering which he needed no prompting, there was no repetition of words or phrases, and it was curious to see how a person who could not be supposed to have gained much command of language, could vary his modes of expressing such barren nonsense. The following specimen of his talk will give a better idea of it than any description possibly can:

"I give all of it to my mother. Neither is jealous, and she shall be my wife. I am going to be most a spirit. She needn't die for me and live as long as I live. She shall have as much to do with everything as I do. She is Mary the mother. I am her third husband—will give her my writings. Jesus Christ was two or three hundred when he died. He laid right down and died. Nothing comes into this world with stronger eyes than I have.. I have got to die for that person—any strong person, Lazarus. I am Lazarus. I am to have the strongest eyes in the world, the best hair, the best of everything. Prettiest man that ever was born—made of the best stuff. Miss Wills was Moses' second wife. Mary, the mother of Jesus, is to be my wife."

In the course of the next two months I visited him twice, and

obtained only a repetition of the same sort of discourse and behavior; and these were the materials, in connection with the facts already mentioned, derived from the officers of the prison, out of which I was to form my opinion respecting the prisoner's mental condition; and the task was not an easy one.

Unquestionably, his exclamation about the sun was simulation. In no form of mental disease with which he could possibly have been affected, can we suppose such a lesion of the mental faculties as that would imply. He was not demented; he was not raving; he had no hallucinations; his perceptive powers were neither weakened nor perverted; and it was the only instance of the kind. This fact raised the suspicion of simulation in regard to all his crazy manifestations, some of which, certainly, were not calculated to remove that suspicion, though none were obviously incompatible with insanity. The entire correctness of his discourse in the first interview, the abruptness of the transition into a stream of wild and whirling words, and the peculiar character of the thoughts they conveyed, produced a first impression not very favorable to a conviction of his honesty. The last mentioned trait seemed indicative of a low grade of dementia more than any other form of insanity, and this seemed to be inconsistent with the clearness and vigor of the rest of his discourse. During my first visit, he was not aware of my function or purpose, but at my subsequent interviews, he knew, at least, that I was a physician. This fact, too, was a ground of suspicion, stronger to others, probably, than to myself. So far, then, the tendency of his manifestations favored the theory of simulation.

On the other hand, a mature consideration of all the circumstances of the case convinced me that they presented nothing incompatible, necessarily, with the existence of real insanity. Men who have been much conversant with the insane in hospitals—not meaning those whose knowledge consists in having *seen* many thousand patients—need not be told that sometimes, for one purpose or another, they make a show of being more crazy than they really are. They see what is going on around them, and, if not too much occupied with their own condition, they need only a little power of mimicry and a sufficient inducement, to imitate it. In one of our regular hospitals—many years ago, thank God—it was one of the customary performances for the entertainment of visitors, to show off a big, double-fisted, unkempt, unshorn patient, acting the role of the furious madman. And he did it, if not very correctly, yet well enough to excite the applause of the lookers-on.

Many insane do certain things as well as they ever did; they plan, contrive, anticipate, in furtherance of a special purpose. There is nothing strange or anomalous, therefore, in the fact of their endeavoring to act the madman; of course, in a phase of the disease different from that which they really exhibit. The criminal classes, to which most of these simulators belong, know, as well

as everybody else, that the plea of insanity is one of the dodges whereby people now seek to escape the punishment of their crimes, and they may not forget it, nor neglect to act accordingly, when they become insane themselves. It may seem, at first glance, a work of supererogation for a man obviously insane to endeavor to impress others with the belief that he is the subject of another and even a very different kind of insanity. The mystery vanishes when we consider that usually no insane person thinks himself to be insane, believing, as they do, with extraordinary tenacity, that the delusions they entertain are gospel truths; while the folly of their actions is strictly in accordance with the requirements of the occasion, and both the delusions and the folly indicative, as they think, of the soundest reason. For the purpose in view, therefore, the role of the simulator is as necessary to them as to others. Thus, Trimbur, being unconscious of his own real insanity, but with mind enough to understand his situation, and to remember what he had heard about insanity in connection with crime, concluded to make a show of being crazy.

I have said that the style of his discourse resembled that of dementia—a form of disease not to have been expected under the circumstances—and therefore suspicious. Unusual, such a phenomenon certainly is, but I am not prepared to say that it is conclusive proof of simulation. We must be cautious how we consider the experience of any individual in so vast a field as the aberrations of the human mind, as having comprised every form and shape which they can possibly take. The larger our experience, the more are we impressed with the infinite diversity of nature, even in the domain of mental pathology, and all, too, under the control of inflexible law. A closer observation of the prisoner might have revealed some connecting links between the sound and unsound trains of thought, which would have rendered the contrast less extraordinary.

Again, it was a very significant fact, in regard to his mental movements, that the perceptive faculties exhibited no aberration whatever, except the single instance first mentioned. Questions involving relations of time, space, distance, etc., were always correctly answered, and, indeed, in regard to all ordinary matters, clearly beyond the sphere of his wild notions, there was not a sign of derangement, real or pretended. Thus he abstained altogether from the dodge—if I may use the term in lieu of a better—which naturally presents itself to the simulator. His object is to make an impression, and he chooses, therefore, the strongest and least mistakable manifestations of disease—such as will be known at once to all men. He says, perhaps, that he is a hundred years old; that a place near by is a dozen miles off; that he knows not at all, persons with whom he has been intimate all his life; and, in short, he misrepresents the simplest matters of fact that happened under his observation. He may not show this trait in every par-

ticular, because he may be afraid of over-acting his part, and think his purpose better answered by holding up occasionally, but he will not entirely abstain from using the opportunity thus afforded for making an impression.

It must be borne in mind, that it is the simulator's purpose—the part he has undertaken to perform—to appear insane, and consequently he is careful not to appear sane, especially on occasions when his ends would be furthered by a successful imitation. He even lays plans for obtruding his mental disorder on the notice of the observer, though exercising all his ingenuity, perhaps, to conceal his design. It is not very likely, therefore, that Trimbur, if he had shrewdness enough to undertake the task of convincing others that he was actually insane, would have allowed our first interview to pass without the slightest attempt in that direction. He might not have suspected my purpose precisely, but he could scarcely have helped suspecting that I had some purpose. Accompanied, as I was, by the physician of the prison, by his keeper, and part of the time by one of the officers, it was an opportunity he would have been only too glad to use. Indeed, with the exceptions above mentioned, it did not appear that he exhibited any sign of insanity, simulated or otherwise, to any officer of the prison.

It is a circumstance also worth considering, that in his statements respecting the murder, when first discovered, and before he was likely to have formed any plan of simulation, he made no attempt to palliate the deed, as a sane man probably would. He never pretended that there was any sudden quarrel between him and his companion, that the latter provoked and assaulted him, and that he acted in self-defense. Calmly and quietly he declared that he killed him while lying in bed asleep, because he had abused his mother.

We are to bear in mind that, on any question of simulation, we are to take into the account the moral, intellectual and social character of the party. A skillful attempt implies some knowledge of men and things, some notions, however crude, about insanity, some power of mimicry, and great tenacity of purpose. Most simulators have picked up from books or personal observation, some ideas of how insane people act and talk; and sometimes a knowledge of their antecedents will show the particular model on which their imitation is founded. Now, no mortal could have been less qualified for acting the simulator of insanity than Trimbur. He was young, not very bright, with little education, his knowledge of the world was limited to a particular locality, abounding in the rough and rowdy element, and he probably had never seen an insane person in all his life. I found it difficult to believe that a person with such a record, could, by pure force of invention, achieve a jumble of thoughts so nearly resembling the utterances of the insane. And in recording them, as in the specimen above given, I found it impossible to follow him so rapidly

as to get the vague, broken, indistinct, half-uttered expressions marking the transitions from one definite thought to another, and of which only those familiar with the insane can have any adequate conception.

Here, then, were the reasons for and against the theory of deception, and had no attempt to deceive been made, as I was obliged to think there had, I should not have hesitated to believe him truly insane. As it was, they greatly preponderated, but so long as there was wanting that test furnished by a more close and continuous observation of discourse, deportment, manners, freaks and fancies, than is implied in an occasional, formal interview, when the person is controlled and restrained by the presence of a stranger, and if actually attempting to deceive, summons all his resources for the occasion—such an observation as he would undergo in the wards of a Hospital for the Insane—I was not ready to relinquish every doubt. However strong the presumption in favor of the prisoner, complete confidence was unwarranted, under the circumstances. And so on the trial, in September, 1872, I testified, that while the prisoner had every appearance of being insane, he might possibly be simulating, and that I had not had such opportunities for testing his mental condition as were needed for forming a certain conclusion. He was convicted of murder in the second degree, but his counsel applied for a new trial, which, after considerable delay, was granted. On the 14th of November, 1873, he was tried again, and acquitted, on the ground of insanity. The medical officers and others connected with the prison had become so strongly convinced of his insanity, that their opinion was readily accepted by the jury.

In May last, I visited Trimbur in the jail. He had grown more stout in body, and more stolid in look. The keepers told me he had been uniformly quiet and well behaved, and neither exalted nor depressed. He was as ready to talk as ever, and his talk was the same sort of jargon that I heard before. He spoke occasionally of the Virgin Mary, though less of her being his wife or mother, but his favorite topic was the excursions he frequently made into various parts of the city. Among those who came to his cell, at one time or another, and took him out, he mentioned General Washington, General Grant, Adam Sharp, Mr. Down, "or some one just as they are sent from Heaven or court. The Virgin Mary sometimes, because she is my aunt." When asked what he did when out, he replied that he kept a shop, and sold things, and again to the same question, he replied, "you must do something to help Philadelphia." Running on in his way, he said, "Those people are all mixed up, all help get the world in order. When they get arrested, I make it very easy for them, I would like to get out of prison. Most all of them is in use—the best of them. Most in prison don't get out." The indistinct utterances, the rambling undertones interspersed among the more

definite expressions, so characteristic of insanity, it is beyond my power to give. Again, about the middle of August, I visited T., and found no change in his manifestations. If stopped in the midst of his jargon, and asked how old he was, how many brothers and sisters he had, his mother's maiden name, how far it was from a certain locality to a certain other, the names of some old associates, the answers were correctly given.

About this time I first heard of an incident, which, had I known it in the beginning, might have removed my doubts respecting the true character of the case. It seems that a week or two before the murder, T. was visited by his mother, who came away greatly distressed, saying to one of the keepers, that her son talked very strangely, as he had never talked before, and she was afraid he was getting crazy.

The history of the case here related, justifies me, I think, in drawing the following conclusions, viz: first, that Trimbur is now, and was at the time of the homicide, really insane; secondly, that apprehending the consequences of the act, he concluded to simulate the disease, of which he was already the unconscious subject; and thirdly, that finding it produced no impression, or that his powers of deception were unequal to the task, he abandoned the attempt after one or two trials.

The above narrative furnishes a strong illustration of the difficulty of dealing with such cases in penitentiaries and jails. No one practically acquainted with the ways of the insane, need be told that such institutions furnish very inadequate opportunities for ascertaining the real mental condition of a prisoner suspected of feigning insanity. So far as it is confined to the manifestations during a special interview, he may escape detection, because he is fairly pitted against the expert, and the trial of his powers is very brief. In a hospital, on the contrary, he is observed much of the time, in every variety of circumstances, and liable at any time to be watched when he least suspects it. His manners, gestures, looks, habits, temper, conversation, may yield revelations more satisfactory than the wildest utterances; and the show of disease so well maintained by a careful and special effort, is constantly liable, under the influence of familiar circumstances, to slide into a natural deportment. For lack of any opportunity of this kind, I was obliged to withhold a positive opinion, notwithstanding my strong impression that I was dealing with a case of genuine insanity. As it happened, no harm was done, for the court, understanding the situation, purposely forbore to press the hearing for a new trial, the prisoner in the meantime becoming so obviously insane, that his acquittal was not resisted by the District Attorney. Every court, however, is not so considerate, and we can easily believe that in some parts of our country, Trimbur would have been summarily hanged.

It is highly desirable that the opportunity should always be fur-

nished somehow, for subjecting such cases to a kind of examination long enough and close enough to remove every doubt. Some of them, surely, might be satisfactorily investigated, even in the prisons, if the physicians attached to those institutions had some practical knowledge of the disease, and it were made their duty, as it never is now, to examine into their mental condition, for the purpose of giving an opinion on the trial. Why should it not be an indispensable qualification for the office, that they should be familiar enough with mental affections to entitle their opinions to some degree of respect?—*Am. Jour. of Insanity, Oct.* 1874.

Digitalis—Is it a Cardiac Sedative, or Cardiac Stimulant? By T. CURTIS SMITH, M.D., of Middleport, Ohio.

Digitalis has been prominently before the profession since 1775, at which time it was introduced by Dr. Withering, in a monograph treating of its value in dropsy. It has held a place in the British Pharmacy since 1721. It has, however, been believed to be by most early writers a cardiac sedative, and is still so considered by some writers, and many, or most of the profession, at the present day. To give a comparative statement of authorities as to its physiological effects and therapeutic value and applications, are the chief objects of this paper. We shall also add some of our own experience with the agent, in the treatment of diseases to which it seemed applicable.

Dr. Eberle, (*Therapeutics*, 1842) says: "I am entirely persuaded that its operation is immediately sedative; for it is certain that its stimulant effects, if it has any at all, are extremely feeble, and by no means proportionate to its ultimate sedative influence." "The fact of the sedative influence of digitalis (Ferriar) is so decisive that I do not hesitate to employ this term, notwithstanding the jargon with which the public has of late years been abused on the subject of sedatives." In the time when Ferriar wrote, there was great discord as to the properties of digitalis, as it was variously claimed to be a diuretic, a stimulant, or a sedative, while some claimed that it had "no properties at all."

Drake, Fowler, Beddoes, Mossman, Stefford, Magennis (loc. cit.), and others, extolled it as a remedy *par excellence* in pulmonary phthisis. This we now know to be untenable. All these writers believed in its cardiac sedative power.

Drs. Hill and Cox recommended it in mania, on account of its sedative effects.

Dr. Baildon (*Edinburg Med. Jour.*, vol. iii.) seems to have been the first to notice the variation of the pulse with different postures of the body. Thus, while standing, the pulse run at 110; while sitting, 70; while lying down, at 40. This effect was in his own

person, but also observed to be the case with other individuals. This difference, it was thought by him and others, accounted for the difference of opinion in different observers and experimenters, and especially for that of Saunders, who looked upon the agent as a cardiac stimulant, prior to 1830.

Dr. Geo. B. Wood (*Therapeutics*) believes the agent to be a local excitant, and that any temporary increase of the pulse is caused by sympathetic action from the local effects of the drug on the stomach, which is sometimes inflamed by too free use of it; but that its effect on the general system is that of a sedative to the nervous centres and to the circulation, the latter being under the control of the former. "The evidence (loc. cit.) of its primary influence upon the nervous centres, and through them on the heart, is afforded by the fact already stated, that if the par vagum be divided on both sides, it (digitalis) ceases to reduce the heart's action, and in moderate doses produces no effect at all."

He further states that with which nearly every writer agrees, viz: That it diminishes the frequency of the pulse. But contrary to the careful observation of others, who have conducted thorough physiological experiments with it, he denies that it increases the volume of the pulse or its tension. "On the contrary," he states, "the resistance under the fingers is generally, if not invariably, diminished in the normal state of the system; and if the influence of the medicine is increased, it may become extremely feeble."

Wood, in referring to the experiments of Traube, of Berlin, with digitalis, in which the pneumogastrics on both sides were divided, and in consequence of which the drug seemed to lose its effects over cardiac action, concludes from this that the influence it exerts is wholly through these nerves, seeming to forget what influence the cardiac ganglia of the sympathetic system has over the movements of the heart. Of this latter point we shall have more to say further on. The remarkable depressing effect which digitalis has over the sexual organs, Wood also refers to its (*London Medical Times and Gazette*, April, 1855,) sedative influence over the organic nerves. "The appearances after death (from digitalis, loc. cit.) are marks of inflammation in the stomach and bowels, dark and coagulable blood, and a *loss of contractibility in the heart.*" (Italics mine.)

This is directly contrary to the carefully-performed experiments of J. Milner Fothergill (Monograph on Digitalis, its Mode of Action and Uses—Hasting's prize essay for 1870), at least as far as the left side of the heart was concerned; for in animals poisoned by it, the left side of the heart was always found empty, and in a state of tonic contraction.

We shall have occasion to refer to these experiments further on.

Waring also adds his view of the sedative action of digitalis, also referring, as do all others, to its cumulative action in some cases, and to its diuretic powers.

Dr. Garrod thinks it a much better diuretic where a deficiency of urinary secretion depends on cardiac disease. This is probably true, as we shall soon try to explain. Waring (Therapeutics, 2nd Lond. Ed., 1866,) also states that if its sedative or diuretic effects are observed, the patient is free from danger of its cumulative power, in which opinion Dr. Munk (Guy's Hospital Reports, 1844,) concurs.

Notwithstanding the sedative action so strongly set forth by Waring (loc. cit.), he states as his fifth proposition that "it is chiefly applicable to diseases of an asthenic character, and in persons of shattered and debilitated constitutions." This to me seems strangely inconsistent; for patients who are "asthenic," and have shattered and debilitated constitutions, are not those to whom I would feel like administering powerful sedatives, but rather the reverse, unless for some special systemic conditions.

To add to this strange inconsistency, we will quote his seventh proposition, viz.: "In old persons, it is necessary carefully to watch the action of digitalis. It has been observed by Schonlein to produce, in some instances, not only an *alarming weakness, but a positive wasting and marasmus*, probably by acting on the nervous system and organs of digestion." Still he has just said it is best adapted to patients that are asthenic, and whose constitutions were in a shattered and debilitated condition. Certainly to make out both of the above propositions must require a mind able to twist and worm around direct contradictions that surpasses that of most men. We think that we shall be able to prove that it is best adapted to those cases where the central organ of circulation is affected with a disease that has weakened its action, and especially where that disease affects mostly the left side of the heart, and shall do so partly from those very authorities that hold it to be such a powerful cardiac sedative, either directly or through the nervous centres. For instance, Dr. Withering (1775), as quoted by Waring, observes: "That it seldom succeeds (in dropsy) in persons of great natural strength or plethoric habit, or in those with a tight and cordy pulse. If the belly in ascites be tense, hard, and circumscribed, or the limbs in anasarca solid and resisting, we have but little hope. On the contrary, *if the pulse is feeble and intermitting* [italics mine], the countenance pale, the lips vivid, the skin cold, the swollen belly soft and fluctuating, the anasarcous limbs pitting under pressure of the finger, we may expect the diuretic effects to follow in a kindly manner." To which Waring adds in comment: "Experience has fully proved the general justness of Withering's remarks." More of these citations hereafter.

Let us now turn to the investigations of J. Milner Fothergill, who, I think, has physiologically demonstrated, and by actual practical experience with the afflicted, proven that it is not a cardiac sedative, but a cardiac tonic of no mean consideration, and that its value in heart diseases, where that organ is weak and debilitated,

or doing overwork from some structural change or circulatory interference, is inestimable. The quotations taken from this author will be found in a very able prize essay written by him, viz.: Hasting's Prize Essay for 1870:

"Snails, when touched with the tincture or strong infusion, took a contractile spasm, threw off a coating of mucus, and passed on apparently unaffected." Earth-worms and wasps were not affected by it.

Fishes—"minnows"—that were poisoned with digitalis, in dying were "drawn to one side." "After death, the ventricle was found firmly contracted and glistening like a speck of gristle; and, on being examined by a microscope, no cavity was visible. The auricle was distended, and vainly tried to drive any blood into the tightly contracted ventricle, the blood merely regurgitating into the venous sinus behind, and then flowing back again from the venous distension, relieving itself on the auricle in diastole." When the venous sinus was pricked, so as to permit the escape of the blood contained in the auricle, it also contracted firmly, so that under the microscope no cavity was discernible.

Two sparrows were poisoned by the drug, and "on opening them immediately after death, the *left* ventricle in each was found firmly contracted; the lungs so congested as almost to be hepatized; the *right* ventricle full of blood. It was evident that the condition of the lungs and right ventricle was due to inability to drive the blood into the contracted left ventricle. The gorged condition of the lungs accounted for the gasping respiration observed."

Experiments on mammals by Hanfield Jones and Fuller, proved that a similar condition of the heart obtained after death from digitalis (loc. cit.)

In Fothergill's experiments on frogs, the left ventricle was uniformly found to be firmly contracted, with the left auricle and right ventricle distended, and lungs greatly congested, and his experiments confirmed those of many other able physiologists, as Dybkowsky, Pellikan, Hilton Fagge and Stevenson, of England.

All these experiments being performed with the heart in plain view, it was noticed that the number of contractions were first increased and then became slower, the dilatation or diastole of the left ventricle becoming less and less perfect, until it ceased in a firm and permanent contraction—systole. Other drugs, as belladonna, caffeine, strychnine and aconite, were experimented with. Under belladonna, the contraction of the left ventricle was quite but less distinct than under digitalis; caffeine still less so; while strychnine produced no perceptible effect on the heart; while with aconite the heart in death was arrested in diastole. This latter fact shows plainly the directly opposite effects on the heart of digitalis and aconite, and leads us unavoidably to inquire whether the one will or will not antidote the other in cases of poisonings.

On this point, Fothergill's experiments go to demonstrate (loc. cit., p. 6,) that while digitalis seems completely to counteract poisoning by aconite, that aconite has not such complete control over poisoning by digitalis, though it "certainly had an influence," but did not ultimately prevent the permanent contraction of the left ventricle, which causes the fatal result under poisonous doses of digitalis. I can scarcely do better than to give his own words with reference to the counteracting influence of digitalis over aconite. The reader will remember that these experiments were performed with the heart of the frog exposed to plain view. He says: "On the contrary, the administration of digitalis was followed by the most marked results when aconite had been given, and the ventricle had become gradually more and more distended, and its contractions more and more imperfect, each contraction merely expelling a small quantity of blood off the top of the distended ventricle, the contractions becoming slower and slower, and less and less perfect, until a condition of advanced dilatation had been artificially produced; and even when the heart seemed to have given up all action, and remained in diastole, distended with blood and inert, ... the first effect (of digitalis) was to produce an imperfect contraction at long invervals; then the intervals became shorter and the contractions more complete, some irregularity, both as to time and amount of contraction, being observed. Slowly and gradually, however, the distended ventricle recovered itself under the action of digitalis, the contractions being more rhythmical and perfect, and the distension less and less pronounced, until a return to normal contraction and distension was brought about."

Here, then, we have an antidote for aconite poisoning, which will render us valuable aid in accidents of this character. But care must be taken not to be too lavish in the use of the antidote, else we may poison the patient with it and cause his death with a contracted left ventricle, instead of permitting such an unhappy result by dilatation, under the poisonous effects of aconite. These experiments with digitalis were also confirmed by Brunton and Gamgee, both eminent observers. They also detected "a temporary murmur" (loc. cit., p. 7), "which was probably caused by imperfect closure of the mitral valve, through the imperfect action of the musculi papellares." The normal action of the heart is controlled by the pneumogastric nerve (from the organic system), and the cardiac ganglia of the sympathetic system. These, by nerve filaments, communicate with each other. The function of the pneumogastric, with reference to that portion which is distributed to the heart, seems to be to prevent too frequent or too rapid action and too great distension, and only admits the systolic action when the ventricle becomes sufficiently distended by blood being poured into it sufficiently to stimulate the heart to contraction. The cardiac ganglia of the sympathetic, on the other hand, tend to increase the number of contractions. When the pneumogastrics

are cut on both sides; the heart beats more rapidly than under the normal condition of these nerves. The heart, then, seems to be kept in normal action between these two balancing nerve powers. Digitalis evidently produces its influence over the heart secondarily, or through its action on the nerve centres controlling its action.

When the system is under the influence of digitalis, and the pneumogastrics are severed, the number of contractions are increased, but not to the same extent as when not influenced by the drug. It does not, therefore, act wholly and only on the vagus, as Traube and others have supposed. "There is no apparent connection between the giving of digitalis and section of the vagi, except an increase in arterial tension," (loc. cit.) Traube had supposed that the effect of the drug was produced by partially or completely paralyzing the vagi. But Hanfield Jones, Fuller, Neimeyer, Dybkowsky and Pellikan believe its effects to be exerted through stimulation of the cardiac ganglia, and that this stimulant effect manifests itself through increased muscular action in the heart, which is under their control. With this view Fothergill also sides, and says: "The action of the stimulated cardiac ganglia (under digitalis) is too much for the action of the vagus." Again, "The results, too, of the administration of digitalis after aconite poisoning had been established, would necessitate the theory of aconite acting as a stimulus to the fibres of the pneumogastric, if Traube's theory of the action of digitalis were true—a conclusion which is not warranted by what we know of aconite."

The action of this agent on the capillaries and arterioles is to produce an increase of their calibre, which effect still further refutes Traube's theory, as these vessels do not contract under an agent which produces a depressing effect, but dilate under such depression. This still further, also, proves that aconite depresses by nerve-sedative power, from the fact that dilatation of these vessels is very noticeable under its influence. This effect of aconite is still further confirmed by Dr. Brunton, London, in a paper recently read before the Medical Society of London, (*Medical and Surgical Reporter*, Aug. 8, 1874,) in which he commends it as our best antiphlogistic, short of venesection, and where control of the circulation is demanded without blood-letting being indicated, as is often the case in inflammatory diseases.

So much, then, for the physiological effects of digitalis upon the animal economy. The question next arises: Will these effects be proven by clinical experience? And to this we will next turn our attention; for this proof, if we can attain it, will confirm us in the views we have set forth, and place the drug in an entirely different light from that in which it has stood before the medical profession for the last century or more, and will give it a new and increased value as a therapeutic agent, with which we may be able more successfully to combat a class of diseases that have been, and still are, the opprobrium of the profession.

As we stated some pages back, we will prove, to some extent, by those who look upon this agent as a cardiac and nerve sedative, that it is not a sedative, but a cardiac stimulant and tonic, and that its value as a diuretic is based really upon the toning influence it has over the circulation, rather than that it has any specific effect as such, and we think we will, too, decidedly establish these facts by later authorities.

The belief that digitalis was a cardiac sedative, grew out of a mistaken pathology. In former times, it was believed that irregular actions and palpitations were due to or caused by "over-action of the heart," whereas we now know that they arise from a condition directly the reverse of that, and grow really out of cardiac deficiency, and that we are not now prepared to admit too great action of this organ resulting from disease of its own structure. What, you may ask, is the strong pulse of the hypertrophied heart but over-action? It is but a compensating growth to meet or overcome some obstacle, or to compensate for loss of power from dilatation of the ventricle. Fothergil says: "We can no more imagine a heart undergoing spontaneous, uncalled-for hypertrophy, than we can fancy a similar action going on in the bladder or bowel," or in any of the muscles of the body. Irregularity and palpitation are only evidences that the organ is being unduly taxed, and that whether hypertrophy exists or not—for if the two co-exist, it is evidence that the hypertrophy has not become great enough to meet the full demands of tension made on the heart by the amount of blood that passes through it. In these conditions, digitalis gives a slower and more regular action by giving tone to the weakened organ, and causing an approximation to the natural strength.

In this state of the heart, the same authority says: "Under digitalis, the pulse becomes steadier, firmer, and less compressible; the excited stroke of palpitation is steadied into the normal, quiet, effective contraction; the system is relieved; dyspnœa, the external evidence of pulmonary congestion, is abated; the *deficient secretion of urine*, (italics mine) which tells us that the pressure on the glomeruli of the malpighian bodies is lessened, is improved, and free secretion takes place; dropsy is thus often relieved."

In this we see a plain hint of the manner by which it brings about its diuretic power. It is observed that he also states that the pulse is firmer and less compressible under the influence of digitalis, which statement is directly opposite to that of Wood, (*Therapeutics*) viz.: that he had never noticed that it increased the force or tension of the pulse, which latter, also, accords with nearly all the statements of the old and some of the new writers on this subject. Fothergill adds to the above quotation the following: "The general condition of cyanosis is abated; there is evidence of a better circulation throughout the system generally. Frequently the gradually widening circle of troubles which are

involving the patient's existence, diminishes after an improvement is inaugurated in the circulation." All this he attributes to "the administration of a drug whose action is unquestionably to produce better, more complete ventricular action; and in that, and that only, I believe the magic lies," (loc. cit.)

In those cases, then, in which the heart is weak, attended by an ill feeling in that region, with anxiety, breathing more or less difficult and irregular, and readily increased by physical exertion or mental excitement, accompanied with palpitation or irregularity of the pulse, skin more or less cyanosed, we may expect beyond a reasonable doubt that digitalis will prove very greatly beneficial.

Drs. Munk, Hope, R. B. Todd, Boillard, Wood, and a host of old writers, speak in warning terms of its use in the above class of cases; while Hanfield Jones, Fuller, Sutton, Gull, Wilks, Sidney Ringer, Fothergill, Gascoigne (*Brit. Med. Jour.*, Aug., 1868), Edward Mackey (*Brit. Med. Jour.*, May, 1868), and many others of equal authority, speak of it in high terms as a heart tonic or stimulant; and commend it for all diseases affecting that organ, where it has its origin in debility of its muscular fibre.

Dr. Darwell, who believed in its sedative action, nevertheless recommends it, with iron, in dropsy, following scarlet and other debilitating fevers. Why thus commend it if it is a cardiac sedative in this class of cases?—for certainly the heart partakes very largely of the general debility of the system. Dr. Holland, of the same belief, strongly commends it in similar conditions. Wood, also, speaks in favorable terms of it in dilatation of the heart, associated with anemia (certainly a condition in which the heart is much weaker than normal), where there is excessive action, and in dropsies depending on deficient cardiac power, he commends it as a diuretic; apparently overlooking the fact that its diuretic influence is attained through the influence which digitalis has in toning the circulation, or he perhaps taking the opposite view. In any light, the above clinical facts given by these and many other men, do not correspond in result with their theory of the action of the drug, *i. e.*, as a sedative. If it is a sedative as powerful as is claimed by some, why did it not retain its reputation in inflammatory diseases, which we know it has completely lost, while its opposite, aconite, is fast gaining ground as a valuable and powerful means of combatting inflammatory action, as in acute pneumonia, pericarditis, etc., as testified to by Brunton, and others, after long experience with it at the bed-side?

Dr. E. Mackey (Prof. Materia Medica Queen's College), in reply to the question, May we expect digitalis to strengthen and make regular a feebly-beating heart, or must we dread its depressing pulsation to the verge of extinction?—says: "We may expect the former in a large number of cases."—*Compend. Med. Science* for July, 1868.

Dr. Gull clinically satisfied himself clearly "that digitalis was

capable of diminishing the frequency of the heart's beat, and increasing the power of the heart's impulse, and is especially useful in cases of disease of the left side, in which the action is very rapid and feeble," (loc. cit.)

Dr. Wilks remarks of a case of dilated, enfeebled heart: "This was just one of those cases where digitalis might be expected to do good," (loc. cit.)

Dr. Fuller states that "the cases of heart disease most benefited by digitalis have been those in which the heart has been weak and dilated, pulse feeble and irregular."

Professor Warren Stone says: "Digitalis is a distinct and strong stimulant to the muscles of the heart."—*New Orleans Journal of Medicine.*

Dr. Gascoigne speaks of it as being efficient by its "tonic action on the heart."—*British Medical Journal*, August, 1868.

Dr. Wiltshire speaks of it as an agent that increases the force of ventricular contraction, especially the left, and as giving force and volume to the pulse, while it diminishes the frequency.—*Compend. Med. Science.*

Dr. B. D. Taylor, of Bellevue, New York, (*N. Y. Med. Jour.*, November, 1870) says: "The tonic action of the drug (digitalis) is well known, but the present case shows its effect in restoring power and regularity almost instantaneously to a feeble heart."

Dr. Bohm, from repeated experiments, concludes that it strengthens the contractions of the heart.

M. Gourvat concludes that the involuntary muscular tissue of the heart is strengthened by it. The beats of the heart are "rendered stronger, slower and more regular by moderate doses."—*Med. and Surg. Reporter*, 1872.

Dr. Pepper says: "In cases that are suitable, the free, fearless and continued use of this drug will relieve the most alarming symptoms of failing circulation, prolong life sometimes for years, and afford incalculable comfort."—*Med. and Surg. Reporter*, vol. xxix., p. 400.

To the above, quotations from Grimshaw, Little, Ainstie, and others, could be given to add weight, but we presume enough testimony has been given to satisfy most readers on this point. Dr. Grimshaw, considering it one of our best heart tonics, as did also Dr. Little, both used it in low typhus, strictly with a view to this effect, and with happy results. The former used the infusion, so that its effects cannot in his cases be referred to the alcohol contained, as in the tincture.

Others in this and other countries have used it with more than ordinary success in delirium tremens, and in large doses (oz. ss. to oz. j). In this class of cases not only the voluntary, but the involuntary muscles have always suffered from long over-stimulation, and are, therefore, weak; and most of those who have thus used it, have done so with a direct view to its tonic and stim-

ulant effects on the heart. Dr. Jones, of Jersey, was, I believe, the first to bring this practice to the notice of the profession.

Numerous accounts of its value in this disease will be found in the *Compend. of Med. Science* and *American Jour. Med. Sciences*, to which the reader is respectfully referred.

My own experience is about as follows: For some years of the early part of my practice, I had been so firmly impressed with its dangerous cumulative powers, that I used it with so much caution that no perceptible effect was observed from it. But while I know that it is a powerful medicine, I have long since learned that these properties have been too greatly exaggerated, and that with care, it is as safe as any of our powerful medicines. I have also been led, from clinical observations, first induced by statements from good authority, from the opinion that it was a cardiac sedative to the direct reverse, viz.: That it is one of our best cardiac stimulants and tonics. Clinically, I have observed that those cases of palpitation, irregularity of pulse and dropsy, anasarca, dyspnœa, etc., which grow out of cardiac weakness, were formerly of great annoyance to me, and I often failed to give any more than very temporary relief. But now such cases under digitalis are generally relieved with as much certainty as an ordinary intermittent fever. It is sometimes almost wonderful to see the change which this agent effects by careful and persevering use.

In one case of dilatation of the left ventricle, in a man somewhat advanced in years, there was undoubted evidence of failure of the wall of the ventricle; the pulse became weak and intermittent; at every few beats the skin became gradually more livid; anasarca made its appearance; the respiration was also greatly interfered with, etc. He had been kept on tonics, with good hygienic regulations, and good diet, for months, but grew steadily worse, and the pulsations more irregular and feeble. I placed him on free doses of the infusion of digitalis, and after getting the heart reasonably under its influence, the dose was diminished to a half drachm, and continued twice a day, which quantity he continued to take for eighteen months. Soon after its commencement an evident improvement was observable. This continued gradually in his favor, till at the end of three months he was quite comfortable, but it was continued at least six months beyond the last vestige of any troublesome heart symptoms. At this time, now four years ago, a stronger or healthier old gentleman can hardly be found.

Numerous cases of feeble heart action could be here related, and of dropsies, pulmonary congestions, etc., growing out of feeble heart, which have been relieved by digitalis, but I presume it is needless here to prolong this paper in that manner.

We will next endeavor to point out that class of cases in which it is indicated, and its contraindications, and for the present leave this subject, feeling satisfied that we have endeavored to do our duty in demonstrating that *digitalis is a decided heart tonic*.

Indications.—In nearly all cases of feeble pulse from feeble heart.

In dilatation, with or without compensating hypertrophy.

In valvulur insufficiency.

In mitral obstruction.

In mitral regurgitation.

In aortic obstruction.

In aortic regurgitation *doubtfully*.

In degeneration of the cardiac walls it is indicated, but must be commenced with small doses, gradually increased, and closely watched.

In neurosal angina pectoris, not connected with serious structural degeneration.

In cardiac asthma or false angina pectoris it is valuable.

In cardiac asthma following or resulting from severe acute disease.

In shock it is valuable.

In palpitations not purely functional, it is not admissible, or is contraindicated.

In tricuspid regurgitation.

In tricuspid obstruction.

In greatly degenerated walls, or in great degeneration of the arterial coats.

In hypertrophy from plethora, with little observable dilatation, its use is questionable.

In most if not all functional disorders its value is questionable, except in cases of quite feeble pulse.

Its use as a diuretic is indicated where there is loss of tone in the circulation as a cause of the scant secretion of urine.

The modes of action as produced by digitalis are given by Fothergill as follows:

"The series of altered actions consequent upon increased contraction run in the following order or sequences; and it may be desirable for the sake of lucidity to arrange in a series of propositions, each depending on the one before, like a logical syllogism. The effects of increased contraction are, then:

"1. Increased arterial distension and tension, which give rise to the systemic symptoms, and further cause

"2. Increased arterial recoil. This is the propelling power for the coronary arteries; and thus arterial recoil means—

"3. Increased or improved coronary circulation; and that, in turn, produces

"4. Increased nutrition of the heart, which results in

"5. Compensatory hypertrophy. In connection with these, we have also to consider—

"6. Atheroma and fatty degeneration of the heart fibres."

These propositions by their study show that digitalis follows the line which nature indicates by her attempts to restore or regulate

the circulation of the system in heart diseases. So long as these indications are closely followed in its use, they will prove of the greatest value to the subjects of cardiac disease.—*Southern Medical Record.*

Editors' Book Table.

[NOTE.—All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.]

The Chicago Medical Register and Directory for 1874–5, published under the direction and supervision of the Medico-Historical Society, has just made its appearance, and we are sorry to say, fully demonstrates the unfortunate results of the errors of organization committed by the Society, and indicated specifically in the JOURNAL, in June last. We are utterly unable to perceive in what respect this Directory differs from—so far as its special contents are concerned—or is in any manner superior to the City Directory. It is furnished, indeed, at a smaller cost, but the amount of information contained in it is smaller, and the price seems to be apportioned to the bulk rather than to the character of the contents.

The publication of this book, under such auspices, must prove a source of deep regret to all who seriously desire the elevation of the standard of their profession. The Chicago Medico-Historical Society, as a body, has done its best, the best of which a body so organized was capable; from it nothing better could be expected; from the large number of medical gentlemen of intelligence and high standing, who constitute an integral portion of the society, much more was to be expected; they were expected to display an amount of moral force to resist outside pressure far greater than could be exercised by individuals in editing a work of this character.

Unfortunately for the profession, the work itself is a standing testimonial to their misguided charity (?) and bad judgment. They have sacrificed their profession to the selfish aims of individuals, and have assumed responsibilities whose weight will

press heavily upon them hereafter. The initial division of the work is entitled "Physicians in Chicago who are in good and regular standing, according to the Code of Ethics of the American Medical Association," which title is further elaborated by an explanatory "Resolution adopted by the Chicago Medico-Historical Society, August 2nd, 1874;" and is followed by an alphabetical list of, quasi, exponents of the text, remarkable, first, for its admissions; secondly, for its omissions; thirdly, for its gross injustice in admitting some and omitting others belonging strictly to the same class; and lastly, for the utter incongruity between text and exposition.

To sustain this criticism, there is ample evidence; it would not even be necessary to go outside of the membership of the Society for witnesses to prove its truth and justice.

But passing by the unjust discrimination which has been exercised toward those hitherto considered of doubtful, or even decidedly bad, repute, we will venture to suggest that Hospitals and their care and management, and the indication of their programmes of medical service, are quite as much within the comprehension of a Medical Directory as are Life Insurance Companies; and that the publication of a physician's hours of attendance upon the latter—for which he is compensated—and the refusal to publish those, upon the former—which are gratuitous—is a distinction more nice than wise, in view of possible suspicions which the maliciously disposed might, unjustly, entertain.

The book is the index of a retrograde movement in professional ethics, to use no harsher but perhaps more appropriate language—a triumph of radicalism over conservatism; from the consequences of which, recovery will be difficult and tedious.

We have no intention nor desire to impugn the motives of the gentlemen to whom we have referred, as constituting a majority of the Society; but must frankly say that their course has been marked by weakness and bad judgment from the beginning to the end, the results of which can only be demoralizing in their tendency.

It is of course unnecessary to commend the work of the Editor and Publishers, which would commend itself sufficiently, were it not amply assured, in advance, by the names of the gentlemen in charge of those duties respectively. H.

Infant Diet. By A. JACOBI, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York. Revised, enlarged, and adapted to popular use by MARY PUTNAM JACOBI, M.D. New York: G. P. Putnam's Sons. 1874.

The author, or authors, of this little volume, while admitting at the outset that the milk of the mother is the best food for the child, appear to make the admission under a mental protest, in view of the many examples of women who have assumed the duties and responsibilities of maternity, although unfitted therefor, by reason of imperfect, or diseased, physical organization.

A large portion of the work consists of an excellent resume of the physiology of digestion, and the chemico vital relations of infant food; followed by descriptions of some of the pathological conditions resulting from the imperfect performance of this function. This portion of the work is unobjectionable. To some of the conclusions to which the authors have arrived, in their general summary, we must beg leave to differ very respectfully with even so high an authority as Dr. Jacobi.

We can perceive no authority in physiology which sanctions, but abundant authority in practical experience which condemns, the administration of farinaceous food to infants—food which these authors regard as essentially valuable; nor can we consider the addition of brandy and whisky to the dietary list of such young subjects, otherwise than as a practice fraught with probable, almost certain, danger to the delicate nerve structure of the infant. In this relation, we refer, of couse, as do the authors, to children in a normal condition; in morbid conditions, the indications must be appropriately met. But that an infant "in very hot weather," even "in the hottest days only," should have a teaspoonful of whisky daily with its food and water, is a plan which might be safely conducted under such experienced observation as that of the author, but which, in the majority of cases, could only result disastrously. H.

Electro-Therapeutics: A Condensed Manual of Medical Electricity. By D. F. LINCOLN, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874.

Until electricians shall have reduced the phenomena with which

they are concerned under some general laws, which shall be based upon fixed principles, and shall have applied thereto a system of nomenclature which shall possess the merit of philological harmony, the study of the science of electro-therapeutics will continue to be a "vanity and vexation of spirit" to all save expert physicists. Just so long as such terms as "force" and "fluid," "force" and "cause," "current" and "intensity," are used synonymously, the science, to whose gateways these terms are the pass words, must ever remain a terra incognita to the medical student.

Dr. Lincoln's little book is one of the best manuals upon the subject which has appeared, and to those engaged in the study of electro-therapeutics, it will be found useful and instructive. It is a praiseworthy effort to reduce order out of chaos, and we have no fault to find with the effort, but must still regret the chaotic condition of the science itself, which defies the efforts of ordinary readers to comprehend it. H.

Clinical Lectures on Various Important Diseases; being a collection of the Clinical Lectures delivered in the Medical Wards of the Mercy Hospital, Chicago. By NATHAN S. DAVIS, A.M., M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine, in Chicago Medical College. Edited by FRANK H. DAVIS, M.D. Second Edition. Philadelphia: Henry C. Lea. 1874.

The first edition of this little work was so fully noticed in the JOURNAL, that it is only necessary for us to refer to this as exhibiting evidences of revision, and marks of improvement over its predecessor, which appears to have met the wants of a large class of readers, if the rapid demand for a second edition may be assumed as an indication of their appreciation of its value, and of the author's popularity, while its contents and style are exponents of his skill, method and culture, as physician, teacher and scholar.

H.

Ligation of Arteries. By Dr. L. H. FARABŒUF, Aide D'Anatomie a la Faculte, Ancien Interne des Hopitaux de Paris. Translated by JOHN D. JACKSON, M.D., of Danville, Kentucky. With engravings. Philadelphia: J. B. Lippincott & Co. 1874.

"An operative manual," and an excellent specimen of that most excellent class of books at this time coming so prominently

into notice, and supplying to the general practitioner what was omitted to a great extent in his curriculum of undergraduate studies, and what he fails to find in necessary detail in his standard text-books. The book is divided into two parts, of which the first, comprising three chapters, treats of principles, or, what the author terms generalities, *i. e.*, the "discovery of the sheath of an artery," the isolation of the vessel, and its ligation. This little book is by no means a treatise on the "art of surgery made easy" for ignorant pretenders, for the author insists at the outset, upon a competent knowledge of anatomy, and addresses his subsequent instructions to those who possess that prerequisite. Amongst the preliminary steps to the study of the ligation of an artery, the author advises that its track be carefully traced upon the skin, and suggests the best material for this purpose, *i. e.*, "tincture of iodine." After this follow most minute practical directions for holding the bistoury for making the incision, and for the discovery of the sheath, all of which occupy an entire article. The method of accomplishing the isolation of the vessels both with the bistoury and director, are amply detailed in the second article, while the third is devoted to the subject of ligation proper, both of arteries in their continuity and of those cut transversely. A chapter is also devoted to the means of obliterating arteries besides the ligature, the author's preference being decidedly for the latter.

The second, and by far the larger, portion of the book is devoted to the subject of special ligations of the vessels of the upper and lower aortic system. The anatomical and surgical directions are minute and clear. The illustrations are excellent and original.

Taking the book as a whole, it will be difficult to find a more complete and useful manual upon any subject, and in its peculiar department we know of none comparable with it. H.

Surgical Emergencies, Together with the Emergencies Attendant on Parturition, and the Treatment of Poisoning. A Manual for the use of General Practitioners. By WILLIAM PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. With eighty-two illustrations. Philadelphia: Lindsay & Blakiston. 1874.

One of the most useful little books which has issued from the medical press during the current year. "It is intended to," and

does, "supply a wide-spread want," "viz., a small book containing directions for the immediate treatment of all those various emergencies with which the general practitioner may be called to deal at any moment." The contents of the book are comprised in twelve chapters, and are illustrated freely and fully. The style in which the book is written, deserves the highest commendation, as one less concise would have been inadequate to the comprehension of such a "multum in parvo." We will venture to suggest an addition to the treatment of epistaxis contained in the first chapter, *i.e.*, compression of the facial arteries upon the jaw, the efficacy of which in arresting this hæmorrhage has been demonstrated so frequently. H.

Physicians' Visiting Lists for 1875.

The pioneers in the publication of these little books, Messrs. Lindsay & Blakiston, are, as usual, first in the field with their issue. They can truthfully claim the propriety of the criticism, "a book which no physician can afford to do without," one which every physician reads, yes, studies, daily, even if he reads no other, and which to many is "the most interesting work ever issued from the medical press." H.

The Nature of Gunshot Wounds of the Abdomen, and their Treatment: based on a review of the case of the late James Fisk, Jr., in its medico-legal aspects. By EUGENE PEUGNET, M.D., Surgeon to the North-Western Dispensary; Member of the New York Pathological Society, etc., etc. New York: William Wood & Co. 1874.

The object of the publication of this monograph, as set forth in the author's preface, was to demonstrate "the necessity of a change in the manner of conducting criminal investigations and in the introduction of expert testimony." The case of Fisk, of which the history is comprised in the first chapter, is made the text for the argument which comprehends four points: 1. "The description of shock;" 2. "Penetrating gunshot wounds of the abdomen;" 3. "The physiological and toxical action of morphine;" 4. "The medical jurisprudence of the Stokes case."

Dr. Peugnet in his little monograph proves himself an expert in medical jurisprudence, no less than in physiology. He appears to have detected, with remarkable clearness, the weak points in the

management of the case, both of the prosecution and defense, and his physiological analysis of the symptoms of the patient, under the varying conditions, which characterized the brief period intervening between the assault and his death, is most elaborate, learned and convincing. Beginning the examination of Dr. Peugnet's work with a decided prejudice against his conclusion, based upon inferences drawn from the published testimony in the case of Fisk, believing fully that the theory of morphine poisoning was merely an ingenious ruse devised by the counsel for the defense to divert the attention of the jury from the direct evidence of murder in the case, we have finished its examination with our prejudices removed by the light of additional evidence, and the author's brilliant physiological arguments.

While, however, the arguments of the author are convincing in support of the theory of opium poisoning—and it cannot be reasonably doubted that the immediate cause of the death of Fisk was the morphine administered after the reception of his wounds—it must still be also maintained that it cannot be reasonably doubted that he would have died from the wounds received, had no morphine been given, and that the defendant was guilty morally, if not technically, of murder in the first degree; this point, however, is beyond our province to discuss. H.

The Philosophy of Spiritualism and the Pathology and Treatment of Mediomania. Two Lectures by FREDERIC R. MARVIN, M.D., Professor of Psychological Medicine and Medical Jurisprudence in the New York Free Medical College for Women. Read before the New York Liberal Club, March 20, 27, 1874. New York: Asa H. Butts & Co., publishers. 1874.

The author of these lectures at the outset states his propositions most clearly, and boldly throws down the gauntlet of defiance to the defenders of spiritualism—whose philosophy he assumes to analyze—in these words: "I reject all forms of materialism, and among them spiritualism." Commencing with a denunciation of spiritualism as the "materialism of materialism," he proceeds to the argument of his lecture, and endeavors to show "that the soul cannot be material substance." The first step in his argument being the demolition of "the rhetorical nebulosities" of spiritualism as expounded by Andrew Jackson Davis and Judge Edmonds, *i. e.:*

1. That man is composed of three substances, body, spirit, and soul.

2. That the soul is the body of the spirit, and the visible body the body of the soul.

3. That the soul is a result of physical organization.

4. That within the physical man there is a spiritual man, corresponding in form and size with its fleshy exterior.

5. That spirit possesses the properties of matter.

Of which our author says, very justly, "if this is not materialism there is no such thing as materialism."

Of the spiritualistic manifestations, so-called, the author protests against their relegation to the domain of the supernatural, and insists that observers await patiently the development of scientific principles which may underlie them, believing that the delay will not be long, "for it is already clear that much, if not most of the 'spiritual phenomena' are the results of deliberate imposture, pitiable credulity or grievous disease."

Dr. Marvin has a logical mind, and exhibits evidences of study and culture in his special department; it is to be regretted that the scope of his studies has been restricted in other directions, and that in consequence he should have given utterance to language for which ignorance is no palliation, *i. e.*, "in mediæval times they (men) worshiped crucifixes, pictures of the Madonna, and strings of beads." Where is the evidence of this to be found except in the false assertion of persons as ignorant as himself on this subject? And further, the assertions that the "lives of saints, priests (whom he classes with ecstatics and media) are so many records of sexual derangement," that "St. Theresa and St. Catherine of Sienna were nymphomaniacs;" are utterances unworthy of a Christian gentleman, which, by courtesy, we assume the author to be, and grossly insulting to the intelligence of two hundred millions of human beings whose faith, that of those whom he so foully maligns, is to-day the only substantial bulwark against the encroachments of the very delusions which he so vigorously assails, and of whom some few, at least, are his peers in intellectual capacity, in logical acumen, and in purity of life.

It is to be regretted that the author's proclivity to dogmatize should so frequently manifest itself, and essentially impair the usefulness of a book, which, had its spirit been more comprehen-

sive and its tone broader, would have served to throw much light upon the subject matter of which it treats. While all must admit the very great influence of derangements of the sexual function in the development of insanity, few, we think, will endorse the author's dogma—"Tilt the organ (the uterus) a little forward—introvert it, and immediately the patient forsakes her home, embraces some strange and ultra ism—Mormonism, Mesmerism, Fourierism, Socialism, oftener Spiritualism;" and further, "Allow the disorder to advance, and it becomes a chronic malady, and alas! the once intelligent, cultivated and pure woman sinks, through a series of strange isms and remarkable affinities, until she reaches the despicable level of the *demi-monde.*"

To the initial propositions of the book, notwithstanding their dogmatism, we most heartily subscribe, and regret that they have not been sustained with the force and perspicacity of which they were susceptible, inasmuch as they were advanced and maintained with the good intent to rescue the human mind from the terrible delusion spiritualism, with which intent we most heartily sympathize. But we cannot endorse the almost exclusive ascription of this deplorable mental condition, rightly termed insanity by the author, to sexual derangement.

The book is on the whole well worth reading, containing much that is interesting; its faults being the necessary results of hasty generalization from insufficient data. H.

Manual of Eye Surgery. By A. J. Howe, A.M., M.D., Author of a Treatise on Fractures and Dislocations, and Professor of Surgery in the Eclectic Medical Institute, Cincinnati. Printed by Wilstach, Baldwin & Co. 1874.

The careful reader, after opening this book, will be struck with the peculiar reasons advanced in the beginning of the preface, by the author, for its compilation: "I found the ground well covered with elaborate treatises," and later, "the general practitioner was left without a work adapted particularly to his wants." On the next page the same general practitioner "is presumed to have a lexicon to which he can refer for the definition of rare and complicated terms," and he is further assured that "the learner obtains more information from a definition found in the dictionary than at first sight might be supposed," and exhorted not to be "discouraged with the array of 'hard' words."

After such a preface the reader, at all doubtful of his philological attainments, commences an inspection of the book with some trepidation, and closer study of its therapeusis suggests the reference of a certain expert, to a "bushel of spoiled eyes." One of the chief merits of the book, as of wit, is its brevity—and the reader is tempted to add to the "Finis" the old couplet: H.

"Since so early I was done for,
I wonder what I was begun for."

Erysipelas and Child-Bed Fever. By THOMAS C. MINOR, M.D. Cincinnati: Robert Clarke & Co. 1874.

Multum in parvo. In this little volume Dr. Minor has attempted to show the intimate relations between the two diseases which constitute the title to his little volume, and although we cannot speak upon this subject from an unprejudiced standpoint, having long since arrived at the same conclusions, we feel sure that an attentive study of the author's data and reasoning will force any candid mind to adopt his conclusions.

His studies of the correspondence in the climatic relations of the two diseases are replete with interest, and his conclusions deduced from these we have been able personally to verify during a residence of some years in the extreme South, where the immunity from the two diseases was most striking when compared with the fatality resulting from both in this locality.

The precautions recommended as necessary to those engaged largely in obstetrical practice, in order to avoid all risk of contagion, are wise and prudent, and thoroughly justified by the mortality observed where these precautions have been neglected.

H.

Address delivered before the American Academy of Dental Science, at their Third Annual Meeting, held in Boston, September 20, 1874. By Dr. W. W. ALLPORT, of Chicago. Published by vote of the Academy.

Dr. Allport is too well known, by the majority of readers of the JOURNAL, to require introduction. The present address is a thoughtful *resume* of the relations between the merely mechanical and scientific or higher professional branches of what is popularly denominated Dentistry. In it is very clearly shown that between the simple making of artificial teeth, plates, etc., and the diagnosis, prophylaxis and treatment of dental diseases, there is as broad a

distinction as that existing between the surgeon and the maker of splints and surgical cutlery; or as that between the physician and the nurse, electrician, bather, cupper and bleeder of old time.

In his opinion, Mechanical Dentistry should be remitted to the artisans, whilst Dental Surgery and Practice should be recognized as really a specialty of medical and surgical practice.

Perhaps this may appear, at first blush, as a matter of little import, but on reflection it will be seen to involve important practical results.

Prominently this: Dental colleges, as separate organizations, are unnecessary. The scientific dentist requires all the elementary teaching given, ordinarily, in the medical colleges, just as does the oculist, the dermatologist, or any other specialist. Dental pathology and practice may be taught by an additional chair in any medical college, remitting, as before stated, manipulations to the dental mechanic.

Our space forbids any considerable extracts from this valuable *brochure*, but to bring the practical suggestion fully before the colleges and the profession, we append the closing paragraphs of the address, with our full endorsement: A.

Let dental mechanics be otherwise taught, as a high mechanical art, and the calling fixed in the mind of the public as such, and, in a few years, a patient would as soon go to the maker of artificial legs for advice or treatment, in conservative surgery, or regarding amputation, as to the *dentician*, or *dentificier*, for advice or services in the saving of his natural teeth, or their extraction.

To drop the teaching of mechanical dentistry in private offices and in our colleges, would, in a few years, permanently divide the practice, and very soon each town of any considerable size, would have one or more of these practitioners, who, relying entirely upon success in this calling for support, and becoming personally responsible for what they did, would seek to redeem and elevate this particular art to the highest degree attainable, thereby enhancing the respectability and usefulness of their calling. And the *dentologist* would, by the broad and comprehensive teachings of medicine, become more thoroughly grounded in its science, and be better qualified to take his rank with the other medically recognized specialists. With this thorough groundwork laid, he would not only be better prepared to treat from a medical standpoint the diseases belonging to his province, but also to grapple successfully, by general treatment, with those hidden and hitherto illy understood influences which serve to prevent perfect dental development, and also to counteract those pathological conditions which act as causes of disease in the teeth and tend to break down their tissues.

With the development of this higher mission of our profession, there will be no occasion for the spectacle of dentology, with the grimace and shuffle of the mendicant, approaching the gates of the medical profession, and with downcast eyes, begging a crumb of recognition. But with the accomplished separation of the two callings, heretofore combined in our practice, dentology, enriched by the experience and the special literature of the last half century, and the foundation of its practice laid exclusively in the science of medicine, rather than

divided between that and a trade, the incongruity of the past will, in a few years, disappear, and by deriving its nourishment from the body of which it is a branch, it will become more and still more assimilated to the science and the practice of medicine, and without demand, there will, both by the public and the medical faculty, be accorded, not to individual practitioners, but to the branch, a full and cordial recognition as a specialty in medicine, which will attract more generally to its ranks, as to an agreeable and useful field of labor, men of earnestness, ability and culture, the peers of any in an honorable profession.

BOOKS RECEIVED.

Report of the Chicago Relief and Aid Society, of Disbursements of Contributions for the Sufferers of the Chicago Fire. Printed for the Chicago Relief and Aid Society at the Riverside Press. 1874.

Therapeutics and Materia Medica; A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By ALFRED STILLE, Professor of the Theory and Practice of Medicine, and of Clinical Medicine, in the University of Pennsylvania, etc., etc. Fourth edition. Thoroughly revised and enlarged, in two volumes. Vol. I. Philadelphia: Henry C. Lea. 1874.

Materia Medica, for the Use of Students. By JNO. B. BIDDLE, Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, etc., etc. Sixth edition. Revised and enlarged, with illustrations. Philadelphia: Lindsay & Blakiston. 1874.

The Nature and Treatment of Venereal Diseases, with Numerous Cases, Formulæ and Clinical Observations. By ROBERT A. GUNN, M.D. New York: Asa K. Butts & Co., Publishers. 1874.

Croup in its Relations to Tracheotomy. By J. SOLES COHEN, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest, in Jefferson Medical College. Philadelphia: Lindsay & Blakiston. 1874.

The Complete Hand-book of Obstetric Surgery; or, Short Rules of Practice in Every Emergency, from the simplest to the most formidable Operations connected with the Science of Obstetrics, with numerous illustrations. By CHAS. CLAY, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, etc., etc. From the Third London edition. Philadelphia: Lindsay & Blakiston. 1874.

Inflammation of the Lungs, Tuberculosis and Consumption. Twelve Lectures. By LUDWIG BUHL, Professor of Pathological Anatomy and General Pathology in the University of Munich, etc., etc. Translated by permission from the Second German edition by Matthew D. Mann, M.D., and Samuel B. St. John, M.D. New York: G. P. Putnam's Sons. 1874.

The Science of Homœopathy; or, a Critical and Synthetical Exposition of the Doctrines of the Homœopathic School. By CHAS. J. HEMPEL, M.D. Boericke & Tafel: New York, Philadelphia, Baltimore and San Francisco.

The Breath, and the Diseases which Give it a Fetid Odor. By JOSEPH W. HOWE, M.D., author of "Emergencies," Clinical Professor in the Medical Department of the University of New York, etc., etc. New York: D. Appleton & Co. 1874.

On Cerebria and other Diseases of the Brain. By CHAS. ELAM, M.D., London, Fellow of the Royal College of Physicians, etc., etc. Philadelphia: Lindsay & Blakiston. 1872.

PAMPHLETS RECEIVED.

Transactions of Medical Society of New Jersey. 1874.

Report of 105 *Cases of Operations for Cataract.* By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon to the Massachusetts Charitable Eye and Ear Infirmary, etc.

The Temperance Question from the Standpoint of the Present. By JNO. MORGAN MCKOWN, M.D., Arcola, Ill.

The Legal Relations of Emotional Insanity. By E. LLOYD HOWARD, M.D., of Baltimore, Md. Extracted from the transactions of the American Medical Association.

CLINICAL CONTRIBUTIONS.

Three cases of Induration of the Os and Cervix Uteri, the result of Syphilis.

Two cases of Syphilitic Insanity.

Four cases of Anomalous Localities of Chancres—extra genital—with Remarks. By M. H. HENRY, M.D., Surgeon in Chief of the State Emigrant Hospital, Ward's Island, New York, etc., etc. 1874.

JOURNALS RECEIVED.

The American Medical Weekly—Oct. 24, 31, Nov. 7, 14.
" Atlanta Medical and Surgical Journal—November.
" American Journal of Insanity—October.
" American Journal of Syphilography and Dermatology—October.
" Boston Journal of Chemistry—November.
" Boston Medical and Surgical Journal—November.
" Cincinnati Lancet and Observer—November.
" Chicago Journal of Nervous and Mental Disease—October.
" Clinic, Cincinnati—Oct. 24, Nov. 14.
" Detroit Review of Medicine and Pharmacy—November.
" Druggists' Circular—November.
" Eclectic Medical Journal—November.
" Indiana Journal of Medicine—November.
" Kansas City Medical Journal—November.
" Laboratory, Boston—October.
" London Lancet—October.
" Medical and Surgical Reporter, Philadelphia—Oct. 24, 31, Nov. 7, 14.

The Medical Times, Philadelphia—Oct. 17, 24, 31, Nov. 7.
" Medical Record, New York—Oct. 15, Nov. 2.
" Medical News and Library—November, and Supplement.
" Medical Press and Circular—October.
" Medical Examiner—Nov. 1.
" Nashville Journal of Medicine and Surgery—November.
" New Remedies, New York—October.
" New York Medical Journal—November.
" Pacific Medical and Surgical Journal—November.
" Peninsular Journal of Medicine—November.
" Practitioner, London—October.
" Pharmacist—November.
" Richmond and Louisville Medical and Surgical Journal—October.
" St. Louis Medical and Surgical Journal—November.
" Southern Medical Record—October.
" Sanitary Journal of Public Health—September.
" Virginia Medical Monthly—November.

Editorial.

"Preparatory Medicines."

What are they? The *Sanitary Journal*, of Toronto, Canada, for September, quotes us at length, as condemning the use of "preparatory medicines," in language utterly regardless of orthography and syntax. The journal referred to is highly creditable to its editor, but needs a new proof reader. H.

"Not so Black as Painted."

Under this caption the *Clinic* of November 14th, 1874, quotes from the CHICAGO MEDICAL JOURNAL of November, 1874, a short notice of Dr. Minor's new work on Child-bed Fever, which can scarcely be called complimentary. Unwilling to depend too much on a very retentive memory, we have searched the number of the CHICAGO MEDICAL JOURNAL indicated, and can find no notice whatever of the book in question. Now, we have sins enough of our own to answer for, without being made responsible for those of our neighbors, especially when they consist in criticisms upon "taste," themselves etymological blunders. Whatever we may have to say of the book in question, we shall not call it a "brochuoe," as we have still an old copy of "Spier and Surenne," a relic of school-boy days, which will protect us from such an exhibition of bad taste and ignorance. H.

The movement recently inaugurated in London to establish a memorial to the late Dr. Francis E. Anstie, has assumed, under the judicious management of those having it in charge, a most sensible direction. It is now designed to raise a fund which shall be applied to the education of his son, in the manner desired by his father, whose wishes in this regard have been so suddenly and unexpectedly frustrated by his untimely death. Dr. Anstie left his family, it appears, in somewhat straightened circumstances, and it is therefore fortunate that the custodians of this fund are endowed with a share of practical good sense, so rare in the present day of unfinished monuments to the forgotten dead. H.

A Compilation of Returns of Vital Statistics *of the Chief Cities of the World, for the week mostly included within the first two weeks of September*, 1874.

City.	Week ending	Deaths.	Rate per 1000 of Population.
Paris	September 18, 1874.	720	20
Brussels	" 12, 1874.	91	29
The Hague	" 12, 1874.	33	18
Amsterdam	" 12, 1874.	106	19
Copenhagen	" 10, 1874.	120	31
Christiana	" 15, 1874.	25	18
Berlin	" 12, 1874.	467	29
Breslau	" 5, 1874.	147	34
Vienna	" 12, 1874.	257	21
Rome	" 6, 1874.	130	27
Turin	" 6, 1874.	85	21 (Annual.)
New York	August 29, 1874.	618	31 "
Brooklyn	" 29. 1874.	225	26
Philadelphia	" 29, 1874.	267	19
Calcutta	" 1, 1874.	204	24 (Annual.)
Bombay	" 25, 1874.	265	21
Madras	July 31, 1874.	298	39
London	September 19, 1874.	1,242	19 (Annual.)
The United Kingdom (twenty-one cities)	" 19, 1874.	3,383	23 (Annual.)
Edinburgh	" 19, 1874.	----------	21
Glasgow	" 19, 1874.	----------	26
Dublin	" 19, 1874.	----------	30
Liverpool	" 19, 1874.	----------	36
Chicago	" 12, 1874.	230	*29.9 (Ann'l) †26.58 "
"	" 19, 1874.	188	*24.44 " †21.72 "

* Estimating the population at 400,000. † Estimating the population at 470,000

There were about 200 births in Chicago, in each of the above weeks, as stated to us by Mr. J. W. Russell, the Secretary of the Board of Health.

The number of births in London for the week ending September 19, was 2,314. For the same period, in London and twenty other large towns of the United Kingdom, 5,407.

One of the deaths registered during the week ending September 19, 1874, in London, was of a servant whose age was stated to be 103 years; the cause of death was certified as bronchitis. The death of a gentleman, on Sept. 12, was referred to "heart disease, accelerated by taking chloral hydrate." A little girl, aged seven, died, in Guy's Hospital, from hydrophobia.

The 1,242 deaths occurring in London, included 105 from scarlet fever, and not one from small-pox. Scarlet fever is increasing, and prevails fatally in Kensington Town, in Dublin, and in eighteen large English towns.

Chicago Mortality Report for October, 1874. Reported by Dr. BEN. C. MILLER, Sanitary Superintendent.

MORTALITY IN MONTH OF OCTOBER, 1874.

Accident, by drowning	3	Debility, general	7
" by fall	4	Delirium tremens	3
" in planing mill	1	Diabetis	1
" run over by bus	1	Diarrhœa	17
" run over by buggy	1	" chronic	5
" by shooting	1	Diphtheria	10
" by railroad	3	Dropsy, general	4
Abscess, pelvic	2	" abdominal	1
Apoplexy	8	Dysentery	11
Asphyxia	1	Dyspepsia	1
Asthma	1	Enlargement of bronchial glands	1
Ataxia, locomotor	1	" of embolia	1
Ascites	4	Enteritis	11
Atelectasis pulmonum	1	Entero-colitis	8
Bowels, perforation of	1	Epilepsy	1
Brain, congestion of	8	Exposure	1
" inflammation of	3	Erysipelas	2
" softening of	3	Exhaustion	1
Bronchitis	5	Fever, puerperal	1
" capillary	6	" remittent	1
Cancer	1	" scarlet	6
" of breast	1	" typhoid	33
" of liver	1	Fungus hematodes	1
" of uterus	4	Gastritis	3
Cholera infantum	34	Gastro enteritis	3
" morbus	1	Hemorrhagica purpura	1
Consumption	63	Heart, disease of	4
Convulsions	74	" congestion of	1
" epileptic	1	" dropsy of	1
Croup	9	" organic disease of	1
" membranous	2	" mitral valvular disease of	1
Cyanosis	2	" valvular disease of	3

Hip, disease of	1	Peritonitis	3
Hydropericarditis	10	Pneumonia	23
Inanition	14	" typhoid	5
Intemperance	2	Pleurisy	2
Intussusception	1	Pharyngitis	1
Icterus	1	Scrofula	1
Jaundice	2	Septicæmia, puerperal	1
Kidneys, Bright's disease	3	Shock, following surgical operation	1
" inflammation of	1	Stomach, ulceration of	2
Liver, disease of	1	Syphilis	2
" cirrhosis of	1	Tabes mesenterica	22
Lungs, congestion of	3	Teething	9
" gangrene of	1	Trismus	5
" hemorrhage of	1	Tonsilitis	2
" œdema of	1	Suicides	3
Meningitis	8	Manslaughter	4
" cerebro-spinal	4	Uræmic poisoning	1
" tubercular	2	Uterus, hemorrhage of	2
Neglect at birth	1	Whooping cough	4
Old age	18		
Paralysis	4	Total	566
Pericarditis	1		

Premature births, 10; Still births, 70. Total 80

COMPARISON.

Deaths in month of October, 1874	566
" " September, 1874	809
Decrease	243
Deaths in month of October, 1873	644
Decrease	78

AGES.

Under one year	175	Thirty years to forty	44
One year to two	92	Forty " " fifty	43
Two years to three	25	Fifty " " sixty	26
Three " " four	9	Sixty " " seventy	22
Four " " five	6	Seventy " " eighty	19
Five " " ten	26	Eighty " " ninety	7
Ten " " twenty	21	Ninety " " one hundred	3
Twenty " " thirty	18	Total	566

Colored	9	Males	311
White	557	Females	255
Total	566	Total	566

Married, 157; Single, 409. Total 566

NATIVITIES.

Belgium	2	Ireland	59
Bohemia	6	Italy	3
Canada	7	Mexico	1
Native—Chicago	89	Norway	3
Foreign, "	239	Scotland	5
United States, other parts	82	Sweden	13
Denmark	1	Wales	1
England	8	Unknown	3
Germany	74	Total	566

Deaths daily, 18¼. Mean temperature, 53.3°. Rain fall, 2.55 inches.